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May 30, 2003

**VIA FEDERAL EXPRESS**

Ms. Eileen L. Furey  
Associate Regional Counsel (C-14J)  
U.S. Environmental Protection Agency  
Region 5  
77 W. Jackson Boulevard  
Chicago, IL 60604-3507

Re: Allied Paper/Portage Creek/Kalamazoo River Superfund Site in Kalamazoo and Allegan Counties, Michigan

Dear Ms. Furey:

As you know, this firm represents the City of Plainwell with regard to the above-referenced site. Pursuant to the U.S. Environmental Protection Agency's (EPA's) Request for Information directed to the City of Plainwell, dated March 28, 2003, (and received by me on March 31, 2003), enclosed please find the City of Plainwell's Response to the Requests For Information which have been signed by Bryan Pond, Superintendent of Wastewater Treatment.

On behalf of the City of Plainwell, we consider that the City of Plainwell has fully responded to this U.S. EPA's CERCLA Section 104(e), 42 U.S.C. §9604(e), Request for Information. Please advise the undersigned immediately upon receipt of this transmittal if you determine our response to be inadequate in any respect.

Sincerely,

LEWIS REED & ALLEN P.C.

Michael B. Ortega

MBO:kjn  
Enclosure  
cc: Mr. Pond w/enclosure

**CITY OF PLAINWELL'S RESPONSE TO USEPA'S MARCH 28, 2003  
REQUESTS FOR INFORMATION PURSUANT TO SECTION 104E  
OF CERCLA FOR ALLIED PAPER/PORTAGE CREEK/KALAMAZOO RIVER  
SUPERFUND SITE IN KALAMAZOO AND ALLEGAN COUNTIES, MICHIGAN**

1. Identify all persons consulted in the preparation of the responses to these Information Requests.

**Response:** Bryan Pond, Superintendent of Wastewater Treatment; Sandra Lamorandier, Human Resources Director, Noreen Farmer, City Clerk; Michael Ortega, Environmental Legal Counsel.

2. Identify all documents consulted, examined, or referred to in the preparation of the responses to these Information Requests and provide copies of all such documents.

**Response:** See attachments 5, 15, 16, 17 and 18.

3. If you have reason to believe that there may be a person(s) able to provide a more detailed or complete response to any Information Request, or who may be able to provide additional responsive documents, identify any such person(s).

**Response:** None known.

**POTW or Other Treatment Facility Ownership**

4. Identify each publicly-owned treatment works or similar treatment facility (hereinafter "POTW") owned or operated by the City of Plainwell at any time during the relevant period that discharged wastewaters directly or indirectly to the Kalamazoo River or tributaries thereof. Identify each POTW by current name and address, if available.

**Response:** City of Plainwell Wastewater Treatment Plant, 129 Fairlane Street, Plainwell, MI 49080

5. For each POTW identified in response to Request #4, provide a detailed history of the ownership and operation of the facility during the relevant period. The detailed history should identify: (1) each owner and operator of the POTW during the relevant period; (2) for each owner or operation, the period of ownership or operation to the nearest month; (3) any parent corporation or other authority for any period when the facility was not publicly owned and operated; and (4) the current mailing address for each owner, operator, parent corporation or other authority.

**Response:** The facility was owned and operated by the City of Plainwell during

the time period in question. The list of persons working as Superintendent of Wastewater Treatment is as follows:

January 1954 (Sept 1943) - April 1983

Joe Denier

Deceased

May 1983 - January 1988

Tim Taylor

Unknown

February 1988 - September 1988

Steve Wolf

Unknown

September 1988 - February 1995

Donald Murdick

Deceased

February 1995 - August 1995

Jerry Lawrence

126 Fairlane Street

Plainwell, MI 49080

August 1995 - Present

Bryan Pond

129 Fairlane Street

Plainwell, MI 49080

#### Paper Company Wastewaters

6. During the relevant period, did any POTW under your ownership, operation or control ever accept for co-treatment with municipal wastewaters, or accept for separate treatment, process wastewaters or other material from any person engaged in the production of pulp, paper, or paperboard products ("paper products") from virgin fiber (wood pulp derived directly from trees) or from secondary fiber (reused cardboard, paper or paper products, including pre-and post-consumer recycled materials)? The term "process wastewaters" means wastewaters generated during the manufacture of pulp, paper or paperboard products, exclusive of sanitary wastewaters. (A list of person who, U.S. EPA believes, engaged in the production of paper products at and near the Site during the relevant period is enclosed as Attachment 4, but there may be additional persons known to you that are not included on the list.)

**Response:** The City of Plainwell Wastewater Treatment Plant has never

received any "process wastewaters" from any person engaged in the production of paper products. To the best of the City's knowledge, all "process wastewaters" generated by paper production operations conducted by the various owners and/or operators of the 200 Allegan Street facility were handled and treated on site at that facility. The City of Plainwell Wastewater Treatment Plan did accept "other material", specifically and limited to sanitary wastewater, from the facility at 200 Allegan Street throughout the relevant period.

7. If the answer to Request #6 is "yes", identify each person engaged in the production of paper products from whom you accepted process wastewaters or other material for treatment during the relevant period. Provide, if available, the current mailing address of each person so identified.

**Response:** To the best of the City's knowledge, the entities which generated the "other material", specifically and limited to sanitary wastewater, are those entities identified on USEPA's Attachment No. 4 as having engaged in the production of paper products during the relevant period at 200 Allegan Street.

#### Other Industrial Wastewaters Containing PCBs

8. Other than the persons identified in response to Request #7, during the relevant period did any POTW under your ownership, operation or control ever accept process wastewaters or other materials containing PCBs or PCB compounds from any person, including industrial or commercial users of the sewerage system?

**Response:** No.

9. If your answer to Request #8 is "yes", identify each person from whom a POTW under your ownership, operation or control accepted process wastewaters or other material containing PCBs or PCB compounds for treatment during the relevant period. Provide, if available, the current mailing address of each person so identified.

**Response:** Not applicable.

#### Treatment Facilities

10. For each POTW owned and operated by you that accepted process wastewaters from any person identified in response to Request #7 or Request #9, provide the following information:
  - a. Identify the POTW, and its current address (if available).



**Response:** Not applicable.

- b. Identify the year and month that POTW primary wastewater treatment facilities were placed in operation. Provide a simplified schematic diagram of the wastewater treatment facilities of the POTW as then configured, showing each major treatment unit of the POTW, including sludge handling facilities and dry weather and maximum hydraulic design wastewater flow rates.

**Response:** Not applicable.

- c. Identify the year and month that POTW secondary (biological) wastewater treatment facilities were placed in operation. Provide a simplified schematic diagram of the wastewater treatment facilities as then configured, showing each major treatment unit of the POTW, including sludge handling facilities and dry weather and maximum hydraulic design wastewater flow rates.

**Response:** Not applicable.

- d. Identify the year and month that POTW advanced (post-secondary) wastewater treatment facilities were placed in operation. Provide a simplified schematic diagram of the wastewater treatment facilities as then configured, showing each major treatment unit, including sludge handling facilities and dry weather and maximum hydraulic design wastewater flow rates.

**Response:** Not applicable.

#### Effluent Flow

- 11. For each POTW owned or operated by you that accepted process wastewaters from any person identified in response to Request #7 or Request #9, identify the monthly average POTW effluent flow in million gallons per day (mgd) for each month during the relevant time period.

**Response:** Not applicable.

#### Total Suspended Solids

- 12. For each POTW owned or operated by you that accepted process wastewaters from any person identified in response to Request #7 or Request #9, identify the monthly average POTW untreated wastewater, primary effluent, secondary effluent, as well as the final effluent total suspended solids (TSS) concentration

(mg/l) and mass loading (lbs/day) for each month during the relevant period.

**Response:** Not applicable.

#### POTW and Sewer System Bypassing

13. For each POTW owned or operated by you that accepted process wastewaters from any person identified in response to Request #7 or Request #9, identify, on a monthly basis during the relevant time period, all available information and data regarding bypasses to the Kalamazoo River, or tributaries thereof; (1) of untreated sewage from the sewerage system tributary to the POTW; (2) of untreated sewage at the POTW headworks; and (3) of partially treated sewage from any point within the POTW (e.g., after primary treatment). Information may be in the form of monitored bypasses where flow records are available; actual or estimated time of bypass events; engineering estimates or studies that provide information on the occurrence of bypasses during specific rainfall events (e.g., amount of bypassing expected with a rainfall of one inch in 24 hours); engineering studies for upgrade of the sewerage systems to eliminate or minimize bypasses; and, any recollections of the frequency and extent of bypasses for discrete time periods based on dates upgrades to the sewerage system and/or POTW were made.

**Response:** Not applicable.

#### PCB Data

14. For each POTW owned or operated by you that accepted process wastewaters from any person identified in response to Request #7 or Request #9, identify all data (daily, monthly or annual during the relevant period) for PCBs and PCB compounds for sewerage system and POTW bypass flows; the POTW influent flow, primary effluent flow, secondary treatment effluent flow; final effluent flow if different than the secondary effluent flow; and primary, secondary and combined wastewater sludge. Results from any historical or archived samples must be included in the response to this request.

**Response:** Not applicable.

#### Sludge Data

15. Identify the monthly amount of wastewater sludge generated at the POTW (tons/month, dry weight basis) during the relevant period, and describe the disposal method and disposal location for the sludge.

**Response:** See attachment 15.

## Process Wastewaters

16. For each person identified in response to Request #7 or Request #9, provide the following information:

- a. Identify the name of the person, including the names of any successor owners or operators, during the entire period of time when you accepted process wastewaters from this person for discharge to the POTW;

**Response:** Not applicable.

- b. Identify, to the nearest month, the period during which each person identified in response to Request #7 or Request #9 discharged process wastewaters or other material to the POTW; the monthly average process wastewater flow from that person; the monthly average TSS concentration (mg/l) and TSS mass loading (lbs/day) discharged from that person to the POTW; and any all PCB data for the process wastewater or other material discharged from that person to the POTW. Results from any historical or archived samples must be included in the response to this request.

**Response:** The City never received "process wastewaters" from any of the persons referenced in Request #7, above. The City did receive, during the relevant period, "other material", specifically and limited to sanitary wastewater from the persons referenced in response to Request #7, above. The City has no records of "monthly average TSS". However, some information regarding TSS limits are included in the materials within Attachment 16. The City has no "PCB data" for the "other material", i.e., sanitary wastewater, and the City is aware of no information of any kind indicating that the sanitary wastewater contained any PCBs.

- c. Identify and produce all correspondence, notes of meetings, or any other documentation regarding the presence of PCBs in the wastewaters discharged to the sewerage system and any of your POTWs by each person identified in response to Request #7 or Request #9.

**Response:** The City is aware of no such documentation, except that the permits issued to Plainwell, Inc. to regulate the sanitary discharge to the City contained provisions prohibiting any discharge of any PCBs to the City. See Attachment 16.

## PCB Discharge Limits

17. Identify all regulations, laws, ordinances or other regulatory controls that limited, directly or indirectly, the discharge of PCB-containing wastewaters to any of your

POTWs during the relevant period.

**Response:** See attachment 17.

#### POTW Permits

18. Identify all federal, state, municipal, or local permits ever issued to you during the relevant period that address the release of any pollutants or hazardous substances, in effluents or in any other manner, to surface waters or sediments. This request includes, but is not limited to, copies of all National Pollutant Discharge Eliminations System ("NPDES") or state permits or orders, issued pursuant to the Federal Water Pollution Control Act, 33 U.S.C. §§ 1251 *et seq.*, or Michigan law, U.S. Army Corps of Engineers permits. For each such issued permit, provide a copy of both the permit and the permit application.

**Response:** See attachment 18.

#### Industrial User Permits

19. For each person identified in response to Request #7 or Request #9, provide copies of all industrial user permits, respective baseline monitoring reports and sewer use agreements issued or prepared for the relevant period.

**Response:** See Attachment 16.

#### Document Retention

20. Provide a copy of each document retention policy that has been in existence at the wastewater treatment facility during the relevant period. If no written policy exists, describe in detail the guidelines and criteria followed by you during the relevant period to determine when documents are discarded, destroyed or retained.

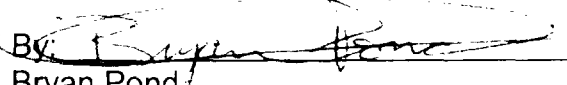
**Response:** The City of Plainwell Wastewater Treatment Plant has no written document retention policy. Donald Murdick began to organize and file paperwork during his tenure as Superintendent, Circa September 1988 through February 1995. Superintendent Bryan Pond has continued to organize and file relevant paperwork, and has disposed of documents that no longer were useful or relevant. Current Michigan Department of Environmental Quality guidelines were referenced.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted.

Based upon my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties or submitting false information, including the possibility of fine and imprisonment for knowing violations.

Dated: May 29, 2003

City of Plainwell

By:   
Bryan Pond  
Its: Superintendent of Wastewater  
Treatment

Michael B. Ortega  
LEWIS REED & ALLEN P.C.  
136 E. Michigan Avenue, Suite 800  
Kalamazoo, MI 49007  
Phone: 269/388-7600; Fax: 269/553-1439

## Attachment 5

TO: Mayor and City Council  
FROM: City Administrator  
DATE: April 25, 1983  
SUBJECT: Employee Retirement

Sept 1943  
April 1983

Wastewater Treatment Plant Superintendent [REDACTED] will be retiring effective April 29, 1983. This matter has been discussed at Workshop Meetings especially with regard to the proposed May 20th Appreciation Dinner. Council should be advised that Mr. Denier is planning on leaving town on an extended vacation on May 9, 1983.



Richard J. Leland  
City Administrator

RESOLUTION 83-4

A RESOLUTION REGARDING THE CITY PERSONNEL POLICY:

WHEREAS the City of Plainwell has provided a retirement benefit to full time employees since 1971 and,

WHEREAS certain individual employees will either reach 62 years of age or complete over 20 years of continuous service to the City without having benefited fully from an Employee Retirement Plan, and

WHEREAS the Mayor and City Council are desirous of providing an additional retirement benefit to the employees listed below, subject to certain terms and conditions,

NOW THEREFORE BE IT RESOLVED AS FOLLOWS:

That effective February 14, 1983 the employees listed below shall be eligible for additional retirement benefits as follows:

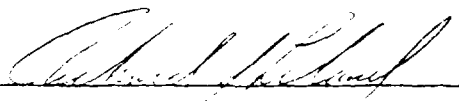
1. Each employee shall have completed a minimum of twenty (20) years continuous service to the City.
2. Each employee shall have reached a minimum age of 62 years prior to accepting retirement.
3. Each employee meeting the minimum qualifications listed above shall receive an annual payment equal to 10 per cent of the employee's last annual wage for five years beginning on the employee's retirement date and payable on the anniversary date over the next four years.
4. Said benefits shall inure to the employee's spouse or estate in the event of the death of the employee.
5. Said amounts shall be made by the City to the employee's retirement account or other account as requested by the employee.
6. Only the following employees shall be eligible for the foregoing special provision:

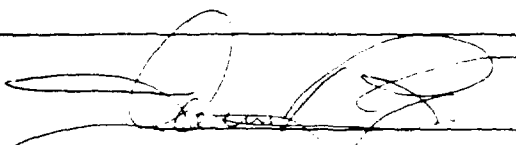
<u>NAME:</u>	<u>ANNIVERSARY DATE:</u>
Dale L. Cook	6/1/59
<b>Jospeh M. Denier</b>	<b>9/16/43</b>
Dewey F. Grimm	4/9/51
Marvin Vanarsdal	4/16/68

AYES: Councilman Carten, Councilman Warnez, Mayor Higgs.

NAYS: Councilman Bartels and Council Member Hartleb

ABSENT: \_\_\_\_\_

  
Richard J. Leland, Administrator

  
James R. Higgs, Mayor



TO: [REDACTED]

FROM: City Administrator

DATE: October 25, 1983

SUBJECT: Appointment as Wastewater Treatment Plant Superintendent

Please be advised that at their 10/24/83 meeting the Plainwell City Council accepted my recommendation to **appoint** you as the permanent **plant superintendent** effective **10/31/83**. The only condition imposed by the Council is that you successfully pass your B Operator Exam within one year. Knowing the effort that you have applied thus far, I have no doubt this will be accomplished.

Richard J. Leland  
City Administrator

*Handwritten notes and stamps in the top right corner, including "RECEIVED" and "OCT 26 1983".*


TO: Mayor and City Council  
FROM: City Administrator  
DATE: October 24, 1983  
SUBJECT: Wastewater Treatment Plant Superintendent

Earlier this year Council approved the appointment of Mr. Tim Taylor as Acting Wastewater Treatment Plant Superintendent. At that time it was understood that the appointment was for an approximately 4 month-period during which Mr. Taylor's overall performance would be reviewed and during which time he would sit for the B Operator examination.

Unfortunately, Mr. Taylor missed the B Operator test by a very few points (4 or 5) and the area of greatest difficulty evolved around a type of sewage treatment not used in Plainwell (activated sludge). Mr. Taylor has, however, remedied his minor academic shortcoming in that area and is well prepared for the next test in the spring of 1984.

In the past few months Mr. Taylor's performance has been most satisfactory. We originally made the recommendation with some concern over Tim's ability to assume a true ownership role and sense of responsibility for the plant. In the past few months Tim has demonstrated true concern and ownership care of not only the plant and City system but the Doster and Martin systems as well. He has successfully organized his work and that of other plant employees in a most efficient manner. Overall we are quite pleased with Tim's progress since starting with the City in January of 1981.

It is recommended that Council approve the appointment of Mr. Tim Taylor as Wastewater Plant Superintendent on a permanent effective 10/31/83.



Richard J. Leland  
City Administrator

December 22, 1987

William R. Stewart  
City Administrator  
141 N. Main  
Plainwell, MI 49080

RE: TIM C. TAYLOR

Dear Bill:

I Tim C. Taylor, Wastewater Treatment Plant  
Superintendent, City of Plainwell, submit my  
resignation as of December 22, 1987 to be  
effective January 22, 1988.

Sincerely yours,



Tim C. Taylor  
cc: Tim C. Taylor

12-22-87

SL

# City of Plainwell

CITY ADMINISTRATOR  
WILLIAM R. STEWART

*The Island City*

141 N. MAIN ST.  
PLAINWELL, MI 49080  
PHONE: 616-685-6821

October 27, 1988

To Whom It May Concern:

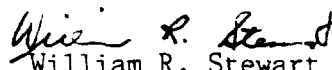
I had the opportunity to work with **Steve Wolfe** during his employment with the City of Plainwell as Superintendent of Public Works. In a highly demanding and visible position, I was impressed by both his professional capabilities and personal demeanor. Steve is an exceptionally motivated individual who approaches an assignment, large or small, with the utmost effort and attention. In his role as a public service employee, Steve recognized the importance of responsiveness to citizen complaints and requests. His pragmatic and tenacious approach to problem solving repeatedly proved to be a true asset.

Steve's versatility and willingness to contribute was demonstrated during the City's search for the Wastewater Treatment Plant Supervisor. In addition to his other duties Steve ably acted as Plant Supervisor in the interim until a replacement could be appointed. His duties also required effective written and presentation skills and Steve fulfilled each of these commendably.

Steve is a conscientious and dedicated employee and would make a valuable contribution to any municipal or private utility service. It's a pleasure to recommend Steve to you.

Sincerely,

THE CITY OF PLAINWELL

  
William R. Stewart  
City Administrator

MAYOR  
JOYCE A. JACKSON

COUNCIL  
CHARLES CARTEN  
JIM HIGGS  
MARGARET GREEN  
EMIL WARNEZ

# City of Plainwell

CITY ADMINISTRATOR  
WILLIAM R. STEWART

*Let M. 1988*  
*Sept 23, 1988*  
The Island City

141 N. MAIN ST.  
PLAINWELL, MI 49080  
PHONE: 616/685-6821

August 30, 1988

Mr. ~~Donald J. Mordick, Jr.~~  
167 Fremont  
Romeo, MI 48065

Dear Don:

In accordance with our conversation of August 29, the Plainwell City Council has confirmed your appointment as Wastewater Treatment Plant Superintendent at a salary of \$28,000. Fringe benefits will be as provided other employees of the City as detailed in the Personnel Rules & Regulations, as amended. Enclosed is a copy of the news release announcing the appointment.

Don, we are pleased with your background and interest in wastewater treatment and look forward to working with you on the opportunities and challenges confronting us in Plainwell.

A moving allowance of \$1,000 has been authorized, subject to submittal of expense records.

Please contact my secretary, Ruth King, with any questions you may have regarding relocation, rental housing, apartments, etc. She will assist you where possible.

Call me if you have any other questions. Enjoy your camping excursion into Kalamazoo and we look forward to your first day of work, September 19.

Sincerely,

THE CITY OF PLAINWELL

*William R. Stewart*  
William R. Stewart  
City Administrator

WRS:dk

Enclosure

MAYOR  
JOYCE A. JACKSON

COUNCIL  
CHARLES CARTEN  
JIM HIGGS  
MARGARET GREEN  
EMIL WARNEZ

# City of Plainwell

Feb 27, 1995  
Aug 7, 1995

Richard G. Runnels  
City Administrator

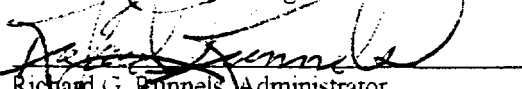
141 N. MAIN ST.  
PLAINWELL, MI 49080  
PHONE: 616/685-6821  
FAX: 616/685-5460

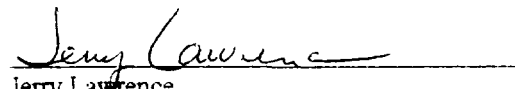
**This Agreement** is made **between Jerry Lawrence and the City of Plainwell** to provide for the continued operation of the Wastewater Treatment Plant subsequent to the death of Donald Murdick, Wastewater Treatment Plant Superintendent, **effective February 27, 1995.**

**Both Parties Agree As Follows:**

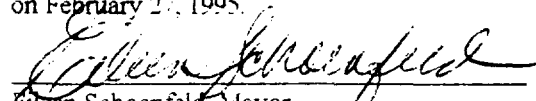
1. That Jerry Lawrence currently maintains a Class B Operators License as required for the Plainwell Wastewater Treatment Plant;
2. That Jerry Lawrence is hereby appointed, on a temporary basis, as the Interim Superintendent of the Plainwell Wastewater Treatment Plant;
3. That Jerry Lawrence shall provide for the efficient operation of the Wastewater Treatment Plant including administrative duties attributable thereto but excluding other administrative duties normally assigned to the position of Wastewater Treatment Plant Superintendent;
4. That the pay rate of Jerry Lawrence shall be increased by \$2.20 per hour effective on the date of this agreement and shall continue for the duration of this temporary appointment;
5. That All "Fringe Benefits" currently provided to Jerry Lawrence shall continue for the duration of this temporary appointment;
6. That at the expiration of this temporary appointment, Jerry Lawrence, at his option, shall have the right to return to his current previous job;
7. That nothing contained herein shall prohibit Jerry Lawrence from applying for appointment as Wastewater Superintendent upon the City's advertising for applicants;
8. That nothing contained herein shall require the City to offer a full time appointment as Wastewater Superintendent to Jerry Lawrence.

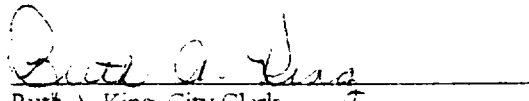
This agreement was prepared by City Administrator, Richard G. Runnels and accepted by Jerry Lawrence as indicated by the signatures below:

  
Richard G. Runnels, Administrator  
City of Plainwell  
February 24, 1995

  
Jerry Lawrence  
February 27, 1995

As provided by the Plainwell City Charter, Section 6.1(c) this agreement was confirmed by the City Council on February 27, 1995.

  
Eileen Schoenfeld, Mayor

  
Ruth A. King, City Clerk

CF



STATE OF MICHIGAN  
DEPARTMENT OF PUBLIC HEALTH

STATE OF NEW YORK

**CERTIFICATE OF DEATH**

1002223

\*YDS 2014\*  
 74  
 GERMANEN\*  
 BLACK 74

NAME OF DECEDENT  
FOR USE BY PHYSICIAN OR INSTITUTION

**DECEASED**

**INFORMANT**

### DISPOSITION

**CAUSE OF DEATH**

**CERTIFIER**

**MEDICAL  
EXAMINER**

1. DECEDENT'S NAME First Middle Last <b>DONALD L. MURDICK JR.</b>						2 SEX Male		3 DATE OF DEATH Month Day Year February 22, 1995	
4A AGE LAST BIRTHDAY Years 39		4B UNDER 1 YEAR MONTHS DAYS		4C UNDER 1 DAY HOURS MINUTES		5 DATE OF BIRTH Month Day Year June 5, 1955		6 COUNTY OF DEATH Kalamazoo	
7a LOCATION OF DEATH Enter place officially pronounced dead as to: HOSPITAL OR OTHER INSTITUTION Name If not in center give street and number <b>Borgess Medical Center</b>						7b IF-HOSP OR-NSE Institution Inpatient		7c CITY VILLAGE OR TOWNSHIP OF DEATH Kalamazoo	
8 SOCIAL SECURITY NUMBER 362-50-7013			9a USUAL OCCUPATION Give kind of work done during most or working life Do not use retired) Superintendent			9b KIND OF BUSINESS OR INDUSTRY Public Waste Water System			
10a CURRENT RESIDENCE STATE Michigan		10b COUNTY Allegan		10c LOCALITY Check one box and specify: <input checked="" type="checkbox"/> INSIDE CITY OR VILLAGE OF <input type="checkbox"/> TWP OF Plainwell		10d STREET AND NUMBER 631 Glenview Circle			
11 ZIP CODE 49080		12 BIRTHPLACE City and State or Foreign Country Almont, MI		13 MARITAL STATUS - Married Never Married Widowed Divorced Specify) Married		14 SURVIVING SPOUSE If wife give name before first married Patricia Schihl		15 WAS DECEDENT EVER IN U.S. ARMED SERVICES Specify Yes or No No	
16 ANCESTRY Mexican Puerto Rican Cuban Central or South American Chinese Other Hispanic Afro-American Arab English French Finnish etc. (Specify below) English/German				17 RACE American Indian Black White etc. If Asian give nationality e.g., Chinese Filipino Asian indian etc. (Specify below) White		18 DECEDENT'S EDUCATION (Specify only highest grade completed) Elementary Secondary D-12 College (1-4 or 5+) 1			
19 FATHER'S NAME First Middle Last Donald L. Murdock Sr.						20 MOTHER'S NAME First Middle Surname before first marriage Dona Schofield			
21 INFORMANT'S NAME Type Print Patricia Murdock				22 MAILING ADDRESS Street and Number or Rural Route Number City or Village State ZIP Code 631 Glenview Circle Plainwell, MI 49080					
23 METHOD OF DISPOSITION Burial Cremation Removal Donation Other (specify) Burial				24 PLACE OF DISPOSITION (Name of Cemetery Crematory other place) Christian Memorial Cultural Center			25 LOCATION City or Village State Rochester Hills, MI		
26 SIGNATURE OF FUNERAL SERVICE LICENSEE [Signature]				27 LICENSE NUMBER 5547		28 NAME AND ADDRESS OF FACILITY Marshall-Gren Chapel 120 S Woodhams Plainwell, MI 49080			
29 PART I Enter the injuries, trauma, or complications that caused the death Do NOT enter the mode of dying such as cardiac or respiratory arrest stroke or heart failure List only one cause on each line. IMMEDIATE CAUSE This phase of condition resulting in death SUBARACHNOID HEMORRHAGE DOUE TO TOP AS A CONSEQUENCE OF								Approximate Interval Between Death and Death 48 hours	
DOUE TO TOP AS A CONSEQUENCE OF									
DOUE TO TOP AS A CONSEQUENCE OF									
PART II Other significant conditions contributing to death but not resulting in the underlying cause given in Part I								27a WAS AN AUTOPSY PERFORMED? Yes or No Yes	
								27b WERE AUTOPSY FINDINGS AVAILABLE PRIOR TO COMPLETION OF CAUSE OF DEATH? Yes or No NO	
28 ACTUAL PLACE OF DEATH Home Nursing Home Ambulance (Specify) Hospital				29 WAS CASE REFERRED TO MEDICAL EXAMINER? (Specify Yes or No) NO				30a The case reviewed and determined not to be a medical examiner's case. Check one (only)	
30a To the best of my knowledge death occurred at the time date and place and due to the causes stated [Signature] R.E. Brush Jr MD				30b DATE SIGNED Mo Day Yr FEB 24 1995				30c TIME OF DEATH P 9:35 AM	
30d NAME OF ATTENDING PHYSICIAN IF OTHER THAN CERTIFIER (Type or Print)				MEDICAL EXAMINER [Signature]				30e CASE NUMBER	
30f PRONOUNCED DEAD Mo Day Yr ON				30g TIME OF DEATH M					
31 NAME AND ADDRESS OF PERSON WHO COMPLETED CAUSE OF DEATH ITEM 29 (Type or Print) RE BRUSH JR MD 1535 GULL ROAD KALAMAZOO						32 LICENSE NUMBER 038139			
33a ACC SUICIDE HUM NATURAL OR PENDING INVEST (Specify)		33b DATE OF INJURY Mo Day Yr		33c TIME OF INJURY M		33d DESCRIBE HOW INJURY OCCURRED			
33e INJURY AT WORK (Specify Yes or No)		33f PLACE OF INJURY At home Farm street facility office building etc (Specify)		33g LOCATION Street or R.F.D. No City village or town State					
34a REGISTRAR'S SIGNATURE [Signature]				34b DATE FILED Month Day Year FEB 27 1995					

8-36  
Rev 1/90

STATE OF MICHIGAN  
COUNTY OF KALAMAZOO

SS

I, JAMES O. YOUNGS, Clerk of the County of Kalamazoo and of the Circuit Court thereof, the same being a Court of Record having a seal, do hereby certify that the above is a true copy of the record on file in my office.

Signed and sealed at Kalamazoo, Michigan  
this 27th day of FEBRUARY 1995.

JAMES O. YOUNGS, Kalamazoo County Clerk

By: Robins. Minhal Deputy Clerk

**MINUTES**  
**Special Meeting**  
**Plainwell City Council**  
**July 17, 1995**

*Handwritten:*  
Paid  
8-25-95  
[Signature]

1. Meeting was called to order at 7:30 PM by Mayor Schoenfeld.
2. Pledge of Allegiance was given by all present.
3. Roll Call: Present: Schoenfeld, Keeler, Snyder, Pickett, Brooks. Absent: none.
4. Discussion:

Mayor Schoenfeld noted that inasmuch as many of the guests in the audience were present to discuss the Janke Property that we would move that to Item #1 on the Agenda to accommodate those people. Second Item would be WWTP Position Update and third item would be the Transition Plan.

**Janke Property:**

It was explained by the City Clerk that while Council had taken action to make an offer to the Janke's in possible settlement of a lawsuit, that being to return the vacant property to him rather than pay money for it, the Council had been approached by members of the DDA to hold off on that offer until the DDA could meet and discuss the possibility of them purchasing that property so it would remain in the control of the downtown. It was the general consensus of the Council that they would be in favor of that taking place and had some months ago voiced that as a possibility but that no word had been forthcoming from the DDA as to that possibility so they assumed that it was not going to happen.

Members of the DDA present in the audience noted that they felt that the DDA would be very interested in this acquisition and requested that Council reconsider making the offer until after the DDA could meet on Wednesday morning and make a decision. There was discussion as to the history of the acquisition of the property up to and including the lawsuit and settlement offer. It was questioned as to why the City Council's original question as to if the DDA would be interested in purchasing the property had not been relayed to the DDA and, why information had not gotten back to the Council as to that being a possibility at this time and forestalling the decision to return the property that Council had recently made. Councilman Brooks acknowledged the fact that Council had thought back in February that the DDA might be interest in buying this property but never heard anything in return on the matter. He stated that he feels, again, that this is a good solution and is in favor of that.

**It was moved by Keeler, supported by Schoenfeld, to table this discussion until July 24th after the DDA has discussed and decided what they wish to do about this property.** There was discussion. It was felt that we should first vote to reconsider the original motion from the July 10th meeting and then decide what to do with the offer at that point. So the following motion was offered after the withdrawal of the previously stated motion.

**It was moved by Schoenfeld, supported by Brooks to bring up and reconsider the motion made at Monday, July 10, 1995 meeting to return the Janke property to the Janke's as our offer for settlement on the lawsuit. On a roll call vote all members voted in favor. Motion carried.**

**It was then moved by Keeler, supported by Schoenfeld, to not tender a settlement offer on the Janke property until such time as further information is received from the DDA in their evaluation of the question. On a roll call vote all members voted in favor. Motion carried.**



### **Wastewater Treatment Plant Positions:**

City Clerk noted that an offer had been made and accepted for Mr. Bryan Pond to become our new Wastewater Treatment Plant Superintendent with his starting date for August 7, 1995. It was also noted that the applicant contacted for the assistant's position had declined and that the applications would have to be gone over again and additional interviews scheduled.

### **Transition Plan:**

There was discussion as to advertising for the position, if we wanted to limit the location to only applicants from the State of Michigan, what the Job Description should include and what the Council felt would be the requirements they would need met in successful candidates. There was considerable discussion as to how to review the applications and how Council would like to handle that process. It was noted that before a committee had been organized to review the applications and narrow the field down to five final candidates at which time the Council would handle the interviews. Membership on the committee was discussed to possibly include one member of the DDA, TIFA, Department Head from Administrative Staff, one representative of the school, Library Board and several citizens at large. It was thought that someone from one of the past Council's should be included in this group.

The time frame for appointing a new Administrator was discussed and it was noted that 90 days had been pinpointed but that the City Attorney had assured Council that if there is a person appointed in the interim that this does not have to be a specified deadline.

**It was moved by Snyder, supported by Schoenfeld, to appoint Ruth King as Interim City Administrator. On a roll call vote all members voted in favor. Motion carried.**

### **Comments:**

Blair Bates voiced his objections to the way the Council allegedly handled the dismissal of the City Administrator and warned them about making decisions too quickly. Several rumors were discussed that Mr. Bates had stated he has heard on the streets and Council responded to those that they could. Councilman Snyder noted that she had disagreed with the way the rest of the Council had handled this and that she had felt guilty about how it turned out. Charles Carten noted that he agrees with Councilman Snyder and discussed several items he was concerned about.

Mr. Jim Koestner noted that while it was unfortunate what had happened he suggested that we move on and get beyond all the negativism that is going on now. Dorgan noted that this type of thing while not pleasant should have been carried out in a more acceptable manner.

There was considerable discussion as to the evaluation outcome itself and the strengths and weaknesses that it had shown Council. Councilman Keeler stated that he felt that Council should take all the suggestions made at this meeting and consider them as constructive criticism and that we now try to open all communications and get on with the process.

**It was moved by Schoenfeld, supported by Keeler, to recess the Regular Meeting into Executive Session to discuss written communication received from Legal Counsel. On a roll call vote all members voted in favor. Meeting recessed at 9:10 PM.**

Executive Session was opened at 9:15 PM. There was discussion regarding the communication received from the City Attorney relative to the termination of the City Administrator. Also discussed was obtaining a updated job description for the City Administrator's position and additional information needed from the City Attorney relative to information received this evening from the City Administrator as to how he

wishes to have his separation take place. It was felt that an additional meeting might be needed in light of the information received from the Administrator and Attorney comments on same.

**It was moved by Keeler, supported by Snyder to adjourn back into Regular Session at 9:55 PM. On a roll call vote all members voted in favor. Motion carried.**

Regular Session of the Plainwell City Council was reconvened at 9:56 PM.

**It was moved by Snyder, supported by Schoenfeld, to schedule a Special Meeting of the Plainwell City Council for July 20, 1995 at 7:30 PM if needed, to discuss contract termination. On a roll call vote all members voted in favor. Motion carried.**

There was brief discussion with Council relative to the upcoming meeting with the National Guard currently scheduled for July 27, 1995.

Also discussed transition plans with department heads present - Karen Koehn, Tom Seymour and Frank Post.

**It was then moved by Snyder, supported by Brooks, to adjourn the meeting at 10:58 PM. On a roll call vote all members voted in favor. Motion carried.**

Submitted by: Ruth A. King, City Clerk

U.S. ENVIRONMENTAL  
PROTECTION AGENCY

JUN 02 2003

OFFICE OF REGIONAL  
COUNSEL

# Attachment 15

Sludge Disposal from the Plainwell Wastewater Treatment Plant

<u>Year</u>	<u>Disposal Method</u>	<u>Location</u>	<u>Amount</u>
Prior to 1988, no records.			
Apr-89	Land Application	Field No. GP-09-KS1	120,000 gallons
Apr-89	Land Application	Field No. MA-22-RR5	120,000 gallons
Apr-89	Land Application	Field No. MA-22-RR5	60,000 gallons
Apr-89	Land Application	Field No. MA-22-RR3	24,000 gallons
Apr-89	Land Application	Field No. GP-20-EB3	120,000 gallons
Apr-89	Land Application	Field No. GP-20-EB2	54,000 gallons
Oct-89	Land Application	Field No. MA-22-RR2	72,000 gallons
Oct-89	Land Application	Field No. MA-22-RR3	42,000 gallons
Oct-89	Land Application	Field No. MA-22-RR1	30,000 gallons
Oct-89	Land Application	Field No. MA-22-RR4	84,000 gallons
Oct-89	Land Application	Field No. GP-20-EB1	120,000 gallons
Oct-89	Land Application	Field No. GP-20-EB4	18,000 gallons
Oct-89	Land Application	Field No. GP-20-EB1	18,000 gallons
Mar-90	Land Application	Field No. GP-20-EB3	175,000 gallons
Aug-90	Land Application	Field No. MA-22-RR5	150,000 gallons
Dec-90	Land Application	Field No. GP-20-EB1	86,000 gallons
Dec-90	Land Application	Field No. GP-20-EB2	149,000 gallons
Dec-90	Land Application	Field No. GP-20-EB3	29,000 gallons
Dec-90	Land Application	Field No. GP-20-RR5	150,000 gallons
Apr-91	Land Application	Field No. GP-20-EB3	132,000 gallons
Apr-91	Land Application	Field No. GP-20-EB4	66,000 gallons
Aug-91	Land Application	Field No. MA-22-RR3	88,000 gallons
Dec-91	Land Application	Field No. MA-22-RR5	302,000 gallons
Apr-92	Land Application	Field No. GP-20-EB1	174,000 gallons
Apr-92	Land Application	Field No. GP-20-EB2	78,000 gallons
Aug-92	Land Application	Field No. CO-30-KC4	234,000 gallons
Sep-93	Subsurface Injection	Field No. 02N11W33-PH01	1.96 dry tons
Sep-93	Subsurface Injection	Field No. 02N11W28-PH01	1.71 dry tons
Sep-94	Landfilled	Westside RDF	200.00 cu-yds
Oct-94	Landfilled	Westside RDF	130.00 cu-yds
Aug-95	Landfilled	Westside RDF	10.90 dry tons
Sep-95	Landfilled	Westside RDF	31.00 dry tons
Oct-95	Landfilled	Westside RDF	52.90 dry tons
Sep-96	Subsurface Injection	02N11W33-PH01	111.69 dry tons
Sep-97	Subsurface Injection	02N11W28-PH01	46.97 dry tons
Sep-97	Subsurface Injection	02N11W33-PH01	55.63 dry tons
Aug-98	Subsurface Injection	01S11W30-KC01	132.87 dry tons
Apr-99	Subsurface Injection	02N11W33-PH01	21.17 dry tons
Jun-99	Subsurface Injection	01N11W23-GD01	39.66 dry tons
Jul-99	Subsurface Injection	02N11W33-PH01	30.66 dry tons
Nov-99	Subsurface Injection	01N13W35-PJ01	53.14 dry tons
May-00	Subsurface Injection	01N13W35-JS01	40.78 dry tons
May-00	Subsurface Injection	01N11W16-GL01	19.96 dry tons
Oct-00	Subsurface Injection	02N11W33-PH01	53.71 dry tons
Apr-01	Subsurface Injection	02N11W33-PH01	13.80 dry tons
May-01	Subsurface Injection	02N11W33-PH01	88.86 dry tons
Dec-01	Subsurface Injection	02N11W33-PH01	68.68 dry tons
May-02	Subsurface Injection	02N11W33-PH01	67.39 dry tons
Nov-02	Information not processed to date.		

May 2002

HAINWELL

State of Michigan  
Department of Environmental Quality

## BIOSOLIDS APPLICATION SHEET

BGD Field No.: AL MA33 - H101  
 Site No.: MI-AL-MA33-H101  
 LNR: 02ND1033-H101  
 Latitude / Longitude: 42°31'14" / 85°37'11"  
 # of seasons used: 3  
 Acres used this month: 27.0 (10.9 ha)  
 Total acres in site: 70.0 (28.4 ha)  
 Method of Application: INJECTED

## Biosolids Applied

## Biosolids Analysis and Soil Loading Rates

DATE	Amount	Unit	%	%	Dry Tons	Nitrogen			Phos. %	Potass. %	Lead mg/kg	Zinc mg/kg	Copper mg/kg	Nickel mg/kg	Cadmium mg/kg	Chrom. mg/kg	Mercury mg/kg	Molyb. mg/kg	Selen. mg/kg	Arsenic mg/kg	
			Solids	VS		TKN %	NH %	NO3 %													
05-01	64800	G	3.99	50.6	11.40	PLL	2.33	0.56	0.0010	5.3	0.08	40.7	947	550	15.7	2.14	67.5	2.5	0.98	0.49	0.57
05-02	129600	G	4.5	50.6	25.72	PLL	2.33	0.56	0.0010	5.3	0.08	40.7	947	550	15.7	2.14	67.5	2.5	0.98	0.49	0.57
05-03	129600	G	4.2	50.6	24.00	PLL	2.33	0.56	0.0010	5.3	0.08	40.7	947	550	15.7	2.14	67.5	2.5	0.98	0.49	0.57

## Crop and Soil Data

Crop to be fertilized: SOMEWHAT

COC: 5.0 mg/100kg

pH: 6.1 S.U.

Bray P1: 106.0 ppm

K: 100.0 ppm

Crop Yield Goal: 70 B

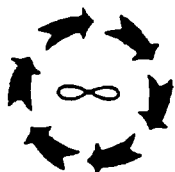
Nitrogen Recommended: 100 lbs/ac

## Acceptable Metal Accumulations

	Total	Yearly
As	36.6	
Cd	4.5	0.22
Cr	2679	
Cu	125	6.25
Pb	267.9	25
Hg	15	
Mn		
Ni	50	2.5
Se	89	
Zn	250	12.5

Average Weight of Biosolids: 8.82 lb/gallon (PLL)

Date of Biosolids Analysis: 03/28/02 (PLL)



ENVIROLAND, INC.  
P.O. BOX 139  
DEWITT, MICHIGAN 48820

FARMER Mr. J. J. Thompson

FIELD NO. 2-1-29-151

USEABLE ACRES 33

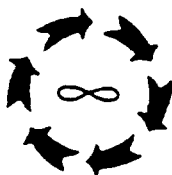
FLY-14552 about 2

LOAD #	DATE	TIME	TRUCK #	DRIVER	GALLONS
1	4/14/89	7:30 AM	K-439	Leo	6000
2	4/14/89	8:00	K-439	Leo	6000
3	4/14/89	11:50 AM	K-439	Leo	6000
4	4/14/89	1:10	K-439	Leo	6000
5	4/14/89	3:20 PM	K-439	Leo	6000
6	4/17/89	8:30 AM	K-438	Leo	6000
7	4/17/89	9:00	#64	Leo	6000
8	4/17/89	9:50	K-438	Leo	6000
9	4/17/89	10:20	#64	Leo	6000
10	4/17/89	10:50 AM	K-438	Rob	6000
11	4/17/89	11:30 AM	#64	Leo	6000
12	4/17/89	12:10 PM	K-438	Rob	6000
13	4/17/89	1:30	#64	Leo	6000
14	4/17/89	1:40	K-438	Rob	6000
15	4/17/89	4:20	#64	Leo	6000
16	4/17/89	5:00	K-438	Rob	6000
17	4-7-89	5:07	#64	Leo	6000
18	4-8-89	8:54	K-438	Rob	6000
19	4-12-89	9:13	64	Leo	6000
20	4-18-89	10:29	K-438	Rob	6000

By [Signature] Title \_\_\_\_\_  
CUSTOMER

By [Signature] \_\_\_\_\_  
ENVIROLAND, INC.

125,000



ENVIROLAND, INC.  
P.O. BOX 139  
DEWITT, MICHIGAN 48820

FARMER

Ken Reuben

FIELD NO.

MA-22-RR5

USEABLE ACRES

35

Hammell WWTP

LOAD #	DATE	TIME	TRUCK #	DRIVER	GALLONS
1	4-18-89	1:36	K-438	Rob	6,000
2	4-18-89	2:05	64	Jeff	6,000
3	4-18-89	3:12	K-438	Rob	6,000
4	4-18-89	4:02	64	Jeff	6,000
5	4-18-89	4:34	K-438	Rob	6,000
6	4-18-89	5:20	64	Jeff	6,000
7	4-19-89	9:56	K-438	Rob	6,000 <sup>18</sup>
8	4-19-89	10:28	64	Mike	6,000
9	4-19-89	11:27	K-438	Rob	6,000
10	4-19-89	11:47	64	Mike	6,000
11	4-19-89	12:51	K-438	Rob	6,000
12	4-19-89	1:31	64	Mike	6,000
13	4-19-89	1:59	K-438	Rob	6,000
14	4-19-89	2:52	64	Mike	6,000
15	4-19-89	3:24	K-438	Rob	6,000
16	4-19-89	4:11	64	Mike	6,000
17	4-19-89	4:42	K-438	Rob	6,000
18	4-19-89	5:27	64	Mike	6,000
19	4-20-89	9:57	K-438	Rob	6,000 <sup>14</sup>
20	4-20-89	11:28	64	Al	6,000

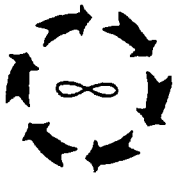
By [Signature]  
CUSTOMER

Title [Signature]

By Michael A. Reed  
ENVIROLAND, INC.

120,000





ENVIROLAND, INC.  
P.O. BOX 139  
DEWITT, MICHIGAN 48820

FARMER Ron Roobel

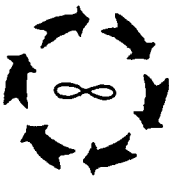
FIELD NO. MA-22-RR5

USEABLE ACRES 35

LOAD #	DATE	TIME	TRUCK #	DRIVER	GALLONS
1	4-20-89	11:36	K-439	Rob	6,000
2	4-20-89	12:20	64	Al	6,000
3	4-20-89	12:56	K-439	Rob	6,000
4	4-20-89	1:32	64	Al	6,000
5	4-20-89	2:14	K-439	Rob	6,000
6	4-20-89	2:54	64	Al	6,000
7	4-20-89	3:34	K-439	Rob	6,000
8	4-20-89	4:03	64	Al	6,000
9	4-20-89	5:29	K-439	Rob	6,000
10	4-20-89	7:34	64	Al	6,000
11	Ron Roobel - MA-22-RR3 - Approx 6 acres				
12	4-21-89	8:19 <sup>AM</sup>	K-439	Rob	6,000
13	4-21-89	8:42 <sup>AM</sup>	64	Mike	6,000
14	4-21-89	10:21	K-439	Rob	6,000
15	4-21-89	11:14	64	Rob	6,000
16					
17					
18					
19					
20					

By [Signature] Title [Signature]  
CUSTOMER

By Michael R Reed 84 000  
ENVIROLAND, INC.



ENVIROLAND, INC.  
P.O. BOX 139  
DEWITT, MICHIGAN 48820

FARMER

Ed Easton

FIELD NO.

GP-20-EE3

USEABLE ACRES

20

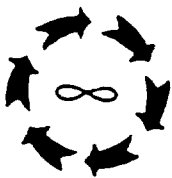
LOAD #	DATE	TIME	TRUCK #	DRIVER	GALLONS
1	4-21-89	2:40	439	Rob	6,000
2	4-21-89	3:77	64	Rob	6,000
3	4-21-89	5:38 <sup>am</sup>	439	Rob	6,000
4	4-24-89	11:00 <sup>am</sup>	439	Rob	6,000
5	4-24-89	11:30 <sup>am</sup>	984	Rob	6,000
6	4-24-89	12:45 <sup>am</sup>	439	Rob	6,000
7	4-24-89	3:37	984	Rob	6,000
8	4-24-89	3:57	439	Rob	6,000
9	4-24-89	4:35	984	Rob	6,000
10	4-24-89	5:14	439	Rob	6,000
11	4-24-89	6:29	984	Rob	6,000
12	4-24-89	7:12	439	Rob	6,000
13	4-25-89	10:30	984	Mike	6,000
14	4-25-89	11:09	439	Rob	6,000
15	4-25-89	11:50	984	Mike	6,000
16	4-25-89	12:14	439	Rob	6,000
17	4-25-89	12:46	984	Mike	6,000
18	4-25-89	1:03	439	Rob	6,000
19	4-25-89	1:49	984	Mike	6,000
20	4-25-89	2:12	439	Rob	6,000

By Ed Easton Title Owner  
CUSTOMER

By Michael R. Reed  
ENVIROLAND, INC.

120,000

120,000



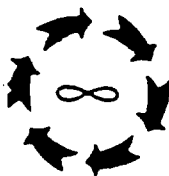
ENVIROLAND, INC.  
P.O. BOX 139  
DEWITT, MICHIGAN 48820

FARMER Ed E. Tull  
FIELD NO. G.P. 20-EE2  
USEABLE ACRES 15

LOAD #	DATE	TIME	TRUCK #	DRIVER	GALLONS
1	4-25-89	3:32	K-439	Mike	6,000
2	4-25-89	3:45	K-439	Rob	6,000
3	4-25-89	4:45	K-984	Rob	6,000
4	4-25-89	5:34	K-439	Rob	6,000
5	4-25-89	6:12	K-984	Mike	6,000
6	4-25-89	6:48	K-439	Rob	6,000
7	4-25-89	6:59	K-984	Mike	6,000
8	4-26-89	7:45	K-439	Rob	6,000
9	4-26-89	7:50	K-984	Mike	6,000
10					
11					
12	Total gallons Hauled				
13	83 Loads @ 6000 gal = 498,000 gal				
14					
15	Hosed and cleaned out				
16	2 Digesters				
17					
18					
19					
20					

By [Signature] Title [Signature]  
CUSTOMER

By Michael R. Reed <sup>54,000</sup>  
ENVIROLAND, INC.



ENVIROLAND, INC.  
P.O. BOX 139  
DEWITT, MICHIGAN 48820

FARMER

Paul R. Jones

FIELD NO.

MA22-RR2 -RR3

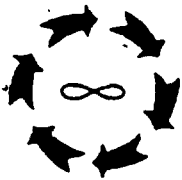
Plain well

USEABLE ACRES

LOAD #	DATE	TIME	TRUCK #	DRIVER	GALLONS
1 <u>MA22-RR2</u>	10-23-89	11:16	953	Jim	6,000
2	10-23-89	11:45	06	Tim	6,000
3	10-23-89	12:10	66	Jeff	6,000
4	10-23-89	12:30	953	Jim	6,000
5	10-23-89	12:55	06	Tim	6,000
6	10-23-89	1:25	66	Jeff	6,000
7	10-23-89	1:55	953	Jim	6,000
8	10-23-89	2:20	06	Tim	6,000
9	10-23-89	2:45	66	Jeff	6,000
10	10-23-89	3:10	953	Jim	6,000
11	10-23-89	3:40	06	Tim	6,000
12	10-23-89	4:05	66	Jeff	6,000
13 <u>MA22-RR3</u>	10-23-89	4:30	953	Jim	6,000
14	10-23-89	4:55	06	Tim	6,000
15	10-23-89	5:25	66	Jeff	6,000
16	10-23-89	5:50	953	Jim	6,000
17	10-24-89	9:00	06	Tim	6,000
18	10-24-89	9:30	953	Jim	6,000
19	10-24-89	10:10	66	Jim	6,000
20					

By Don Menden Title \_\_\_\_\_  
CUSTOMER

By Jeff Menden  
ENVIROLAND, INC.



ENVIROLAND, INC.  
P.O. BOX 139  
DEWITT, MICHIGAN 48820

FARMER

Pen Roboal

FIELD NO.

MA 22-RR1

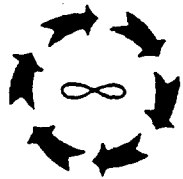
USEABLE ACRES

Plain well

LOAD #	DATE	TIME	TRUCK #	DRIVER	GALLONS
1	10-24-89	10:30	06	Tim	6.000
2	10-24-89	11:00	953	Tim	6.000
3	10-24-89	11:40	66	Jeff	6.000
4	10-24-89	12:45	953	Tim	6.000
5	10-24-89	2:00	06	Jim	6.000
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

By Con Munder Title   
CUSTOMER

By [Signature]  
ENVIROLAND, INC.



ENVIROLAND, INC.  
P.O. BOX 139  
DEWITT, MICHIGAN 48820

FARMER Ron Robool

FIELD NO. MA 22-RR4

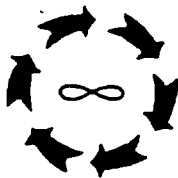
Plain well

USEABLE ACRES \_\_\_\_\_

LOAD #	DATE	TIME	TRUCK #	DRIVER	GALLONS
1	10-24-89	4:30	953	Jim	6,000
2	10-24-89	5:05	66	Jeff	6,000
3	10-24-89	5:25	06	Tim	6,000
4	10-25-89	9:00	953	Jim	6,000
5	10-25-89	9:30	66	Jeff	6,000
6	10-25-89	10:00	06	Tim	6,000
7	10-25-89	10:25	953	Jim	6,000
8	10-25-89	10:45	66	Jeff	6,000
9	10-25-89	11:20	953	Jim	6,000
10	10-25-89	11:40	06	Tim	6,000
11	10-25-89	12:05	66	Jeff	6,000
12	10-25-89	12:30	953	Jim	6,000
13	10-25-89	1:00	06	Tim	6,000
14	10-25-89	1:20	66	Jeff	6,000 <sup>70%</sup>
15					
16					
17					
18					
19					
20					

By Don Mudd Title \_\_\_\_\_  
CUSTOMER

By Jeff Mudd  
ENVIROLAND, INC.



ENVIROLAND, INC.  
PO. BOX 139  
DEWITT, MICHIGAN 48820

FARMER Paul Vandenburg

FIELD NO. GP 20 EB1

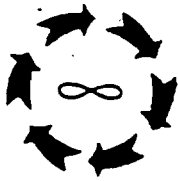
Plainswell

USEABLE ACRES \_\_\_\_\_

LOAD #	DATE	TIME	TRUCK #	DRIVER	GALLONS
1	10-25-89	2:30	953	Jim	6,000
2	10-25-89	2:55	06	Tim	6,000
3	10-25-89	3:25	66	Jeff	6,000
4	10-25-89	3:50	953	Jim	6,000
5	10-25-89	4:15	06	Tim	6,000
6	10-26-89	9:20	66	Tim	6,000
7	10-26-89	10:00	953	Tim	6,000
8	10-26-89	10:50	06	Tim	6,000
9	10-26-89	2:20	953	Jim	6,000
10	10-26-89	2:50	66	Jeff	6,000
11	10-26-89	3:15	06	Tim	6,000
12	10-26-89	3:50	953	Jim	6,000
13	10-26-89	4:10	66	Jeff	6,000
14	10-26-89	4:30	06	Tim	6,000
15	10-26-89	5:00	953	Jim	6,000
16	10-26-89	5:25	66	Jeff	6,000
17	10-26-89	5:45	06	Tim	6,000
18	10-27-89	8:30	66	Jeff	6,000
19	10-27-89	8:50	06	Tim	6,000
20	10-27-89	9:15	66	Tim	6,000

By [Signature] Title \_\_\_\_\_  
CUSTOMER

By [Signature]  
ENVIROLAND, INC.



ENVIROLAND, INC.  
P.O. BOX 139  
DEWITT, MICHIGAN 48820

FARMER Paul Vandenburg

FIELD NO. GP 20 EB4

Plainwell

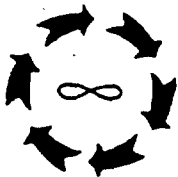
USEABLE ACRES \_\_\_\_\_

LOAD #	DATE	TIME	TRUCK #	DRIVER	GALLONS
1	10-27-89	11:30	953	Tim	6,000
2	10-27-89	12:40	66	Tim	6,000
3	10-27-89	1:20	953	Tim	6,000
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

By Don Murda Title \_\_\_\_\_  
CUSTOMER

By Jeff Hallender  
ENVIROLAND, INC.





ENVIROLAND, INC.  
P.O. BOX 139  
DEWITT, MICHIGAN 48820

FARMER Paul Vandenburg  
FIELD NO. GP20 EBI

Plainwell

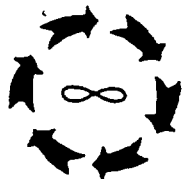
USEABLE ACRES \_\_\_\_\_

LOAD #	DATE	TIME	TRUCK #	DRIVER	GALLONS
1	10-27-89	10:50	953	Tim	6,000
2	10-27-89	11:10	66	Jeff	6,000
3	10-27-89	2:00	953	Tim	6,000
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

TOTAL GALS 384,000  
+ 4 hours cleaning time

By Don Munde Title \_\_\_\_\_  
CUSTOMER

By [Signature]  
ENVIROLAND, INC.



ENVIROLAND, INC.  
P.O. BOX 139  
DEWITT, MICHIGAN 48820

FARMER Ed Barton

FIELD NO. GP 20 EB3

USEABLE ACRES 20

Plainwell WWTP

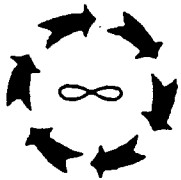
LOAD #	DATE	TIME	TRUCK #	DRIVER	GALLONS
1	3-27-90	10:20	# 56	Tim	3000
2	3-27-90	10:50	# 05	Mike	3000
3	3-27-90	11:05	# 56	Tim	3000
4	3-27-90	11:20	# 05	Mike	3000
5	3-27-90	11:30	# 56	Tim	3000
6	3-27-90	11:40	# 05	Mike	3000
7	3-27-90	11:55	# 56	Tim	3000
8	3-27-90	12:10	# 05	Mike	3000
9	3-27-90	12:20	# 56	Tim	3000
10	3-27-90	12:35	# 05	Mike	3000
11	3-27-90	12:45	# 56	Tim	3000
12	3-27-90	1:00	# 05	Mike	3000
13	3-27-90	1:10	# 56	Tim	3000
14	3-27-90	1:20	# 05	Mike	3000
15	3-27-90	1:35	# 56	Tim	3000
16	3-27-90	1:45	# 05	Mike	3000
17	3-27-90	1:55	# 56	Tim	3000
18	3-27-90	2:10	# 05	Mike	3000
19	3-27-90	2:20	# 56	Tim	3000
20	3-27-90	2:30	# 05	Mike	3000

By \_\_\_\_\_  
CUSTOMER

Title \_\_\_\_\_

By Michael R Reed  
ENVIROLAND, INC.

3000  
60000



ENVIROLAND, INC.  
P.O. BOX 139  
DEWITT, MICHIGAN 48820

FARMER Ed Barton

FIELD NO. GP 20 ER 3

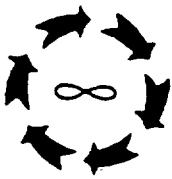
USEABLE ACRES 20

Plan well WWTP

LOAD #	DATE	TIME	TRUCK #	DRIVER	GALLONS
1	3-27-90	2:15	# 56	Tim	3000
2	3-27-90	3:00	# 05	Mike	3000
3	3-27-90	3:10	# 56	Tim	3000
4	3-27-90	3:25	# 05	Mike	3000
5	3-27-90	3:35	# 56	Tim	3000
6	3-27-90	3:45	# 05	Mike	3000
7	3-27-90	4:00	# 56	Tim	3000
8	3-27-90	4:10	# 05	Mike	3000
9	3-27-90	4:25	# 56	Tim	3000
10	3-27-90	4:35	# 05	Mike	3000
11	3-27-90	4:45	# 56	Tim	3000
12	3-27-90	5:00	# 05	Mike	3000
13	3-27-90	5:15	# 56	Tim	3000
14	3-27-90	5:25	# 05	Mike	3000
15	3-27-90	5:40	# 56	Tim	3000
16	3-27-90	5:50	# 05	Mike	3000
17	3-28-90	8:10	# 56	Tim	3000
18	3-28-90	8:25	# 05	Mike	3000
19	3-28-90	8:40	# 56	Tim	3000
20	3-28-90	9:15	# 05	Mike	3000

By \_\_\_\_\_ Title \_\_\_\_\_  
CUSTOMER

By Michael R Reed  
ENVIROLAND, INC.



ENVIROLAND, INC.  
P.O. BOX 139  
DEWITT, MICHIGAN 48820

FARMER Ed Barton

FIELD NO. GP 20 E B 3

USEABLE ACRES 50

Plannell WWTP

LOAD #	DATE	TIME	TRUCK #	DRIVER	GALLONS
1	3-28-90	9:30	# 56	Tim	3000
2	3-28-90	9:50	# 05	Mike	3000
3	3-28-90	10:00	# 56	Tim	3500
4	3-28-90	10:15	# 05	Mike	3000
5	3-28-90	10:25	# 56	Tim	3000
6	3-28-90	10:35	# 05	Mike	3000
7	3-28-90	10:50	# 56	Tim	3000
8	3-28-90	11:00	# 05	Mike	3000
9	3-28-90	11:15	# 56	Tim	3000
10	3-28-90	11:25	# 05	Mike	3000
11	3-28-90	11:35	# 56	Tim	3000
12	3-28-90	11:50	# 05	Mike	3000
13	3-28-90	12:05	# 56	Tim	3000
14	3-28-90	12:20	# 05	Mike	3000
15	3-28-90	2:00	# 56	Tim	3000
16	3-28-90	2:10	# 05	Mike	3000
17	3-28-90	2:25	# 56	Tim	3500
18	3-28-90	2:35	# 05	Mike	3500
19	56 LOADS @ 3000 gal = 168,000				
20	2 LOADS @ 3500 gal = 7,000				

total gallons Hauled 175,000

By Michael R Reed Title Gen  
CUSTOMER

By Michael R Reed  
ENVIROLAND, INC.

THANK YOU FOR YOUR BUSINESS!

↓

Field	Acres	Acres Used	Gal/Field	Last Appl Date	Gal/Acre	Appr Date	Exp Date	Owner	Farmer	Address	City/State	Zip Code
GP-20-KB1	20	10	86000	06-Dec-90	8600	14-Apr-89	26-Mar-95	Ed Barton	P. VanDenBurg	979 9th St.	Plainwell	49080
GP-20-KB2	15	15	149000	06-Dec-90	9933	14-Apr-89	26-Mar-95	Ed Barton	P. VanDenBurg	979 9th St.	Plainwell	49080
GP-20-KB3	20	4	29000	05-Dec-90	7250	14-Apr-89	26-Mar-95	Ed Barton	P. VanDenBerg	979 9th St.	Plainwell	49080
MA-22-RR5	35	10.5	150000	28-Aug-90	14285	14-Apr-89	30-Jun-89	Ron Roobol	Ron Roobol	1732 5th St.	Martin, MI	49070

↓

Field	Acres	Acres Used	Gal/Field	Last Appl Date	Gal/Acre	Appr Date	Exp Date	Owner	Farmer	Address	City/State	Zip Code
GP-09-KS1	33	0	0	00-Jan-00	0	14-Apr-89	30-Jun-90	K. Sutherland	K. Sutherland	490 110th St.	Plainwell	49080
GP-20-BB1	20	10	86000	06-Dec-90	8600	14-Apr-89	26-Mar-95	Ed Barton	P. VanDenBurg	979 9th St.	Plainwell	49080
GP-20-BB2	15	15	149000	06-Dec-90	9933	14-Apr-89	26-Mar-95	Ed Barton	P. VanDenBurg	979 9th St.	Plainwell	49080
GP-20-BB3	20	4	29000	05-Dec-90	7250	14-Apr-89	26-Mar-95	Ed Barton	P. VanDenBerg	979 9th St.	Plainwell	49080
GP-20-BB4	7	0	0	00-Jan-00	0	14-Apr-89	26-Mar-95	Ed Barton	P. VanDenBerg	979 9th St.	Plainwell	49080
MA-22-RR1	10	0	0	00-Jan-00	0	14-Apr-89	30-Jun-89	Ron Roobol	Ron Roobol	1732 5th St.	Martin, MI	49070
MA-22-RR2	15	0	0	00-Jan-00	0	14-Apr-89	30-Jun-89	Ron Roobol	Ron Roobol	1732 5th St.	Martin, MI	49070
MA-22-RR3	30	0	0	00-Jan-00	0	14-Apr-89	30-Jun-89	Ron Roobol	Ron Roobol	1732 5th St.	Martin, MI	49070
MA-22-RR4	15	0	0	00-Jan-00	0	16-Apr-89	30-Jun-89	Ron Roobol	Ron Roobol	1732 5th St.	Martin, MI	49070
MA-22-RR5	35	10.5	150000	28-Aug-90	14285	14-Apr-89	30-Jun-89	Ron Roobol	Ron Roobol	1732 5th St.	Martin, MI	49070

1991

✓

Field	Acres	Acres Used	Gal/Field	Last Appl Date	Gal/Acre	Appr Date	Exp Date	Owner	Farmer	Address	City/State	Zip Code
GP-20-EB3	20	16	132000	18-Apr-91	8250	14-Apr-89	26-Mar-95	Ed Barton	Brad Keller	325 W. 1st	Plainwell	49080
GP-20-EB4	7	7	66000	17-Apr-91	9428	14-Apr-89	26-Mar-95	Ed Barton	Brad Keller	325 W. 1st	Plainwell	49080
MA-22-RR3	30	13	88000	01-Aug-91	6769	14-Apr-89	30-Jun-89	Ron Roobol	Ron Roobol	1732 5th St.	Martin, MI	49070
MA-22-RR5	35	35	302000	17-Dec-91	9600	14-Apr-89	30-Jun-89	Ron Roobol	Ron Roobol	1732 5th St.	Martin, MI	49070

Field	Acres	Acres Used	Gal/Field	Last Appl Date	Gal/Acre	Appr Date	Exp Date	Owner	Farmer	Address	City/State	Zip Code
GP-09-KS1	33					14-Apr-89	30-Jun-90	K. Sutherland	K. Sutherland	490 110th St.	Plainwell	49080
GP-20-EB1	20	10	86000	06-Dec-90	8600	14-Apr-89	26-Mar-95	Ed Barton	Brad Keller	325 W. 1st	Plainwell	49080
GP-20-EB2	15	15	149000	06-Dec-90	9933	14-Apr-89	26-Mar-95	Ed Barton	Brad Keller	325 W. 1st	Plainwell	49080
GP-20-EB3	20	16	132000	18-Apr-91	8250	14-Apr-89	26-Mar-95	Ed Barton	Brad Keller	325 W. 1st	Plainwell	49080
GP-20-EB4	7	7	66000	17-Apr-91	9428	14-Apr-89	26-Mar-95	Ed Barton	Brad Keller	325 W. 1st	Plainwell	49080
MA-22-RR1	10					14-Apr-89	30-Jun-89	Ron Roobol	Ron Roobol	1732 5th St.	Martin, MI	49070
MA-22-RR2	15					14-Apr-89	30-Jun-89	Ron Roobol	Ron Roobol	1732 5th St.	Martin, MI	49070
MA-22-RR3	30	13	88000	01-Aug-91	6769	14-Apr-89	30-Jun-89	Ron Roobol	Ron Roobol	1732 5th St.	Martin, MI	49070
MA-22-RR4	15					16-Apr-89	30-Jun-89	Ron Roobol	Ron Roobol	1732 5th St.	Martin, MI	49070
MA-22-RR5	35	35	302000	17-Dec-91	9600	14-Apr-89	30-Jun-89	Ron Roobol	Ron Roobol	1732 5th St.	Martin, MI	49070

Field	Acres	Acres Used	Gal/Field	Last Appl Date	Gal/Acre	Appr Date	Exp Date	Owner	Farmer	Address	City/State	Zip Code
CO-11-DK1	30					10-Aug-92	10-Aug-97	Dan Klein	Dan Klein	394 E. B Ave.	Plainwell	49080
CO-21-DK1	20					10-Aug-92	10-Aug-97	Dan Klein	Dan Klein	394 E. B Ave.	Plainwell	49080
CO-21-DK3	20					10-Aug-92	10-Aug-97	Dan Klein	Dan Klein	394 E. B Ave.	Plainwell, MI	49080
CO-28-KC2	42					20-Aug-92	20-Aug-97	Kieth Cool	Kieth Cool	3234 W. E Ave.	Kalamazoo, MI	49007
CO-30-KC2	34					20-Aug-92	20-Aug-97	Kieth Cool	Kieth Cool	3234 W. E Ave.	Kalamazoo, MI	49007
CO-30-KC4	37	25	234000	24-Aug-92	9360	20-Aug-92	20-Aug-97	Kieth Cool	Kieth Cool	3234 W. E Ave.	Kalamazoo, MI	49007
CO-30-KC6	26					20-Aug-92	20-Aug-97	Kieth Cool	Kieth Cool	3234 W. E Ave.	Kalamazoo, MI	49007
GP-09-KS1	33					14-Apr-89	30-Jun-90	K. Sutherland	K. Sutherland	490 110th St.	Plainwell	49080
GP-20-BB1	20	20	174000	07-Apr-92	8700	14-Apr-89	26-Mar-95	Ed Barton	Brad Keller	325 W. 1st	Plainwell	49080
GP-20-BB2	15	15	78000	08-Apr-92	5200	14-Apr-89	26-Mar-95	Ed Barton	Brad Keller	325 W. 1st	Plainwell	49080
GP-20-BB3	20	16	132000	18-Apr-91	8250	14-Apr-89	26-Mar-95	Ed Barton	Brad Keller	325 W. 1st	Plainwell	49080
GP-20-BB4	7	7	66000	17-Apr-91	9428	14-Apr-89	26-Mar-95	Ed Barton	Brad Keller	325 W. 1st	Plainwell	49080
MA-22-RR1	10					14-Apr-89	15-Jul-96	Ron Roobol	Ron Roobol	1732 5th St.	Martin, MI	49070
MA-22-RR2	15					14-Apr-89	15-Jul-96	Ron Roobol	Ron Roobol	1732 5th St.	Martin, MI	49070
MA-22-RR3	30	13	88000	01-Aug-91	6769	14-Apr-89	15-Jul-96	Ron Roobol	Ron Roobol	1732 5th St.	Martin, MI	49070
MA-22-RR4	15					16-Apr-89	15-Jul-96	Ron Roobol	Ron Roobol	1732 5th St.	Martin, MI	49070
MA-22-RR5	35	35	302000	17-Dec-91	9600	14-Apr-89	15-Jul-96	Ron Roobol	Ron Roobol	1732 5th St.	Martin, MI	49070
Total-->	409											

Field	Acres	Acres Used	Gal/Field	Last Appl Date	Gal/Acre	Appr Date	Exp Date	Owner	Farmer	Address	City/State	Zip Code
CO-30-KC4	37	25	234000	24-Aug-92	9360	20-Aug-92	20-Aug-97	Kieth Cool	Kieth Cool	3234 W. E Ave.	Kalamazoo, MI	49007
GP-20-BB1	20	20	174000	07-Apr-92	8700	14-Apr-89	26-Mar-95	Ed Barton	Brad Keller	325 W. 1st	Plainwell	49080
GP-20-BB2	15	15	78000	08-Apr-92	5200	14-Apr-89	26-Mar-95	Ed Barton	Brad Keller	325 W. 1st	Plainwell	49080



## ANNUAL REPORT OF OPERATION

1993

## SLUDGE DATA

*Donald L. Muesel*  
Superintendent's Signature

P. 111 WWT

MONTH	RAW SLUDGE						DIGESTING SLUDGE						SUPERNATANT			DIGESTED SLUDGE				METHANE PRODUCED
	gallons	TS %	TVS %	lbs/1000	pH su	TEMP F	TS %	TVS %	pH su	vol. acids	total alk.	gallons	TS %	TVS %	pH su	gallons	TS %	TVS %	pH su	
JAN	2542	2.4	73	8.3	6.5	77														
FEB	3647	3.2	71	15.4	6.5	79														
MAR	3900	3.2	69	16.2	6.6	80														
APR	3900	4.2	68	20.7	6.4	90	1.7	59	6.5	849	2117		0.26	49	7.2					
MAY	3900	4.4	69	22.1	6.1	95	2.2	57	6.9	600	3012		0.20	32	7.5					
JUN	4201	4.3	70	23.2	5.6	95	2.4	58	7.0	598	3337		0.20	38	7.5					
JUL	4214	4.3	68	22.6	6.3	97	2.3	57	6.8	413	2983		0.28	42	6.5					
AUG	3200	4.4	68	20.0	6.0	90	2.0	57	6.8	400	2800		0.28	42	6.5					
SEP	3300	3.8	68	15.7	6.2	95	2.2	58	6.8	490	2140					340000	5.3	48		
OCT	3300	3.3	70	14.0	6.3	96	1.6	56	6.9	388	2718		0.26	38	7.1					
	3300	4.3	69	18.1	6.1	91	1.9	58	6.9	250	2745		0.30	38	7.1					
DEC	3300	3.6	72	15.6	6.7	90	2.0	61	6.6	1678	2758		0.28	35	7.1					
TOTAL	43764	XXXX	XXXX	XXXXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXXX	XXXXX	0	XXXXX	XXXX	XXXX	340000	XXXXX	XXXX	XXXX	0
DAILY AVG	3647	3.8	69	17.7	6.3	90	2.1	58	6.8	637	2711	0	0.36	42	7.2	932	5.3	48	0.0	0
1992	5935	3.7	62	24.0	6.3	71	1.6	54	6.6	564	2300	8174	0.97	42	6.8	1317	5.3	49	7.1	
% CHANGE	86.4%	2%	11%	-40.3%	0.0%	-1%	24%	6%	3%	11%	15%	0.0%	-169%	-1%	5%	-41.4%	-1.0%	-2%	0%	0.0%

# SLUDGE DISPOSAL- PLAINWELL 9/93

Month

Sept 1993

SLUDGE DATA		SLUDGE APPLIED			MONTH
% SOLIDS	5.25	DATE	GALLONS	DRY TONS	1.96
% VOLATILES	50.50	9/01	136,000	AVAN LB/TON	48.20
% TKN	2.89	9/02	51,000	TOTAL P	142.28
% NH-4	1.39	9/07	76,500	TOTAL K	28.44
% NO-3	0.72			TOTAL N	94.46
% P	3.63				
% K	0.726				
METALS		ALLOWED	1/20TH	METAL LOADING	LBS/AC
Pb MG/KG	196	510	25.50	MONTH	YEAR
Zn MG/KG	1,187	255	12.75	0.77	0.77
Cu MG/KG	992	128	6.37	4.65	4.65
Ni MG/KG	305	51	2.55	3.89	3.89
Cd MG/KG	16	1		1.20	1.20
Cr MG/KG	448			0.06	0.06
		THIS		1.76	1.76
		MONTH			
		263,500			
FIELD DATA					Used
CEC	5.1				7/93
pH	6.0				
Bray 1 PPM	86				
K PPM	100				
Crop, LAST	wheat				
CROP, NEXT	corn				
RECOMMENDED					
N	180				
P					
K	120				
PARCEL #	02N11W33-PH01				
TOTAL ACRES	90				
ACRES APPLIED	30				
# SEASONS USED	1				
SITE:	PAUL HAZEN				

# SLUDGE DISPOSAL- PLAINWELL 9/93

Month

Sept 1993

SLUDGE DATA		SLUDGE APPLIED				MONTH
% SOLIDS	5.25	DATE	GALLONS	DRY TONS		1.71
% VOLATILES	50.50	9/07	34,000	AVAN LB/TON		48.20
% TKN	2.89	9/08	42,500	TOTAL P		123.92
% NH-4	1.39			TOTAL K		24.77
% NO-3	0.72			TOTAL N		82.27
% P	3.63					
% K	0.726					
METALS		ALLOWED	1/20TH	METAL LOADING	LBS/AC	
Pb MG/KG	196	960	48.00	MONTH	YEAR	CUMULA
Zn MG/KG	1,187	480	24.00	0.67	0.67	0.67
Cu MG/KG	992	240	12.00	4.05	4.05	4.05
Ni MG/KG	305	96	4.80	3.39	3.39	3.39
Cd MG/KG	16	1 THIS		1.04	1.04	1.04
Cr MG/KG	448	MONTH		0.05	0.05	0.05
		76,500		1.53	1.53	1.53
FIELD DATA						Used
CEC	9.6					7/93
pH	6.1					
Bray 1 PPM	50					
K PPM	112					
Crop, LAST	wheat					
CROP, NEXT	corn					
RECOMMENDED						
N	170					
P						
K	120					
PARCEL #	02N11W28-PH01					
TOTAL ACRES	20					
ACRES APPLIED	10					
# SEASONS USED	1					
SITE:	PAUL HAZEN					



# GENERATOR'S WASTE PROFILE SHEET

PLEASE PRINT IN INK OR TYPE

Waste Profile Sheet Code

WMNA 282993

This form is to be used to comply with the requirements of a waste agreement

INSTRUCTIONS FOR COMPLETING THIS FORM ARE ATTACHED

(Shaded Areas For Contractor Use Only)

Decision Expiration Date:

12/31/94

Service Agr. Renewal Date:

1/1

Contractor Sales Rep#: 11

## A. WASTE GENERATOR INFORMATION

- Generator Name: City of Plainville, Vt.
- SIC Code:
- Facility Address (site of waste generation): 179 Fairlane
- Generator City, State/Province: Plainville, VT
- Zip/Postal Code: 05050
- Generator USEPA/Federal ID #:
- State/Province ID #:
- Technical Contact: Donald L. Mordick
- Phone: (606) 665-553

## B. WASTE STREAM INFORMATION (See Instructions)

- Name of Waste: Aerobically Digested Sludge
- Process Generating Waste: Municipal Wastewater Treatment Plant
- Annual Amount/Units: 500 cu. yds.
- Type A ☒ Type B ☐
- Special Handling Instructions/Supplemental Information: N/A
- Incidental Waste Types and Amounts: N/A

## C. TRANSPORTATION INFORMATION

- Method of Shipment: ☐ Bulk Liquid ☒ Bulk Sludge ☐ Bulk Solid ☐ Drum/Box ☐ Other
- Supplemental Shipping Information:
- Is this a DOT hazardous material? ☒ No ☐ Yes (If yes, complete 4, 5 & 6)
- Hazard Class/ID #:
- Reportable Quantity/Units (lb/kg): 2000 lbs
- Shipping Name:

## D. TECHNICAL MANAGER DECISION (Check One) ☒ APPROVED ☐ DISAPPROVED ☐ Check if additional information is attached

If Disapproved, Explain:

If Approved, Continue.

- Management Method(s):
- Precautions, Conditions, or Limitations on Approval:

3. For Type A Wastes, Laboratory Analysis of a Representative Sample Was:

☐ Waived

☒ Attached

If waived, explain why:

4. List Non-WMI Facility that is Approved to Manage this Waste:

Tech. Mgr. Signature:

Name (Print): M. Mordick

Date:

Date: 9/23/94

## E. MANAGEMENT FACILITY INFORMATION / DECISION

- Proposed Management Facility: Westside R.D.F.
- Proposed Intermediate Transfer Facility: N/A
- Transporter: R.F.I.
- Management Facility Gen. Mgr. Decision (Check One) ☒ APPROVED ☐ DISAPPROVED
- If Disapproved, Explain:
- If Approved, List Precautions, Conditions, or Limitations on Approval:
- General Mgr. Signature: [Signature]
- Name (Print): Thomas E. Wilson
- Date: 9-23-94

Turn Page and Complete Side 2 (If Type B Special Waste, only complete Part J of Side 2)



# GENERATOR'S WASTE PROFILE SHEET

PLEASE PRINT IN INK OR TYPE

## F. PHYSICAL CHARACTERISTICS OF WASTE (See Instructions)

1. Color <u>Black</u>	2. Does the waste have a strong incidental odor? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes; if so, describe: _____	3. Physical State @ 70°F/21°C: <input type="checkbox"/> Solid <input checked="" type="checkbox"/> Semi-Solid <input type="checkbox"/> Liquid <input type="checkbox"/> Powder <input type="checkbox"/> Other: _____	4. Layers <input type="checkbox"/> Multi-layered <input type="checkbox"/> Bi-layered <input checked="" type="checkbox"/> Single Phased	5. Specific Gravity Range <u>N.A.</u>	6. Free Liquids: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Volume: _____ %
7. pH: <input type="checkbox"/> ≤2 <input type="checkbox"/> > 2-4 <input type="checkbox"/> 4-7 <input type="checkbox"/> 7 <input checked="" type="checkbox"/> 7-10 <input type="checkbox"/> 10- <12.5 <input type="checkbox"/> ≥12.5 <input type="checkbox"/> Range <input type="checkbox"/> NA	8. Flash Point: <input checked="" type="checkbox"/> None <input type="checkbox"/> <140°F/60°C <input type="checkbox"/> 140 - 199°F/60 - 93°C <input type="checkbox"/> ≥200°F/93°C <input type="checkbox"/> Closed Cup <input type="checkbox"/> Open Cup				

## G. CHEMICAL COMPOSITION

1. <u>Have supplied copy of all analyses on this sludge earlier.</u>	RANGE (MIN-MAX)	2. Does the waste contain any of the following? (provide concentration if known):
_____	_____ %	NO or LESS THAN or ACTUAL
_____	_____ %	PCBs <input type="checkbox"/> <input type="checkbox"/> < 50 ppm _____ ppm
_____	_____ %	Cyanides <input type="checkbox"/> <input type="checkbox"/> < 30 ppm _____ ppm
_____	_____ %	Sulfides <input type="checkbox"/> <input type="checkbox"/> < 500 ppm _____ ppm
_____	_____ %	
_____	_____ %	
_____	_____ %	
_____	_____ %	
_____	_____ %	
Total: _____	_____ %	

Please note: Unless analytical results are attached, the chemical composition identification should include, at a minimum, Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, Silver, Pesticides, Herbicides, and any other TCLP constituents that may be present in the waste. The total composition must be greater than or equal to 100%. (.0001% = 1 ppm or 1 mg/l)

3. Indicate method used to determine composition (if provided): ☐ TCLP ☒ Total ☐ Other: \_\_\_\_\_

## H. SAMPLING SOURCE (e.g., Drum, Lagoon, Pit, Pond, Tank, Vat) Representative from Tank

### I. REPRESENTATIVE SAMPLE CERTIFICATION

1. Print Sampler's Name: Donald Mordick 2. Sample Date: See Printout  
3. Sampler's Title: Supt WWTP  
4. Sampler's Employer (if other than Generator): \_\_\_\_\_

The sampler's signature certifies that any sample submitted is representative of the waste described above pursuant to 40 CFR 261.20(c) or equivalent rules.

5. Sampler's Signature Donald L Mordick

### J. GENERATOR CERTIFICATION

By signing this profile sheet, the Generator certifies:

1. This waste is not a "Hazardous Waste" as defined by USEPA or Canadian Federal regulation and/or the state/province.
2. This waste does not contain regulated radioactive materials or regulated concentrations of PCB's (Polychlorinated Biphenyls).
3. The unshaded portions of this sheet and the attachments contain true and accurate descriptions of the waste material. All relevant information regarding known or suspected hazards in the possession of the Generator has been disclosed.
4. The Generator has read and understands the Contractor's Definition of Special Waste included in Part B.5. of the attached instructions form. All types and amounts of special wastes provided in incidental amounts have been identified in section B.6. of this form.
5. The analytical data presented herein or attached hereto were derived from testing a representative sample taken in accordance with 40 CFR 261.20(c) or equivalent rules.
6. If any changes occur in the character of the waste, the Generator shall notify the Contractor prior to providing the waste to the Contractor.

7. Signature Richard J. Kunzels 8. Title CITY ADMINISTRATOR

9. Name (Type or Print) RICHARD J. KUNZELS 10. Date AUG 23 1991

APPROVED BY COUNCIL 8/22/91

ANALYTICAL RESULTS

To: Plainwell, City of WWT

Project No: 942831

Report Date: 9/20/94

Project Desc.: Analysis of one sludge sample.

Sample No.: 942831-01

Type: solid

Rec'd: 9/20/94

Sampled: 9/20/94

By: Client

ID: "Sludge Off Belt Press"

Paint filter test

Passed

Unless otherwise noted, test results represent the sample(s) as they were received.

Post-It™ brand fax transmittal memo 7671		# of pages > 1
To Joe Rudy - WMI	From Jamie Calk - BPI	
Co.	Co.	
Dept.	Phone # 381-2226	
Fax # 273-1662	Fax # 381-9559	



100 East North Street  
P.O. Box 51427  
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SERVICE TICKET  
158421

Division of BFI Waste Systems

Cash ☐ Visa/MC ☐ Check # \_\_\_\_\_

C.O.D.  
Amount \$ \_\_\_\_\_

Customer Name City of Plainwell

Address 129 Fairlane Relocated To \_\_\_\_\_

Bldg. # \_\_\_\_\_ Job # \_\_\_\_\_ Cont # 92 Size 20 Yards \_\_\_\_\_

Time In 10:20 Time Out 10:50 Total Minutes 30 Weight \_\_\_\_\_

Delivered ☒ Relocated ☐ Dumped ☐ Done ☐ S/O \_\_\_\_\_

Product \_\_\_\_\_ Destination \_\_\_\_\_ AUTO/MANUAL: ☐ (A/M)

ON CALL ☐ EXTRA ☐ SPECIAL ☐

ACCT. NO: \_\_\_\_\_

LOC. CODE: \_\_\_\_\_

SERV. DATE: 9-15-94

TRANS CODE: \_\_\_\_\_

TRANS. DESC: \_\_\_\_\_

SYS CODE: \_\_\_\_\_

RTE: 402

NBR OF HAULS: \_\_\_\_\_

CONT SIZE: 20

VOL CODE: \_\_\_\_\_

COMP: ☐ ON CALL: ☐

HAUL CHRG: \_\_\_\_\_

DISP CHRG: \_\_\_\_\_

OTHER CHRG: \_\_\_\_\_

DISP COST: \_\_\_\_\_

DISP VOL: \_\_\_\_\_

VOL CODE: \_\_\_\_\_

DISP SITE: \_\_\_\_\_

ACTUAL DISP SITE: \_\_\_\_\_

ACTUAL DISP DATE: \_\_\_\_\_

SERV MINUTES: 30

TRUCK NBR: 402

DRIVER NBR: 401



CUSTOMER SIGNATURE: Terry (unclear)

DRIVER SIGNATURE: EARL

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SERVICE TICKET  
159151

Division of BFI Waste Systems

Cash ☐ Visa / MC ☐ Check # \_\_\_\_\_ C.O.D. Amount \$ \_\_\_\_\_

Customer Name

CITY OF PLAINWELL

Address

PLAINWELL

Relocated To

Bldg. #

Job #

Cont #

20130

Size

20

Yards

20

Time In

7:10

Time Out

9:35

Total Minutes

145

Weight

Delivered ☐

Relocated ☐

Dumped ☒

Done ☐

S/O

Product

SEWER BRIDGE

Destination

WSS

AUTO/MANUAL: ☐ (M)

ON CALL ☐ EXTRA ☐ SPECIAL ☐

ACCT. NO:

\_\_\_\_\_

LOC. CODE:

\_\_\_\_\_

SERV. DATE:

09-22-94

TRANS CODE:

\_\_\_\_\_

TRANS. DESC:

\_\_\_\_\_

SYS CODE:

\_\_\_\_\_

RTE:

402

NBR OF HAULS:

\_\_\_\_\_

CONT SIZE:

22

VOL CODE:

\_\_\_\_\_

COMP:

ON CALL: ☐

HAUL CHRG:

\_\_\_\_\_

DISP CHRG:

\_\_\_\_\_

OTHER CHRG:

\_\_\_\_\_

DISP COST:

\_\_\_\_\_

DISP VOL:

\_\_\_\_\_

VOL CODE:

\_\_\_\_\_

DISP SITE:

WSS

ACTUAL DISP SITE:

\_\_\_\_\_

ACTUAL DISP DATE:

09-22-94

SERV MINUTES:

145

TRUCK NBR:

402

DRIVER NBR:

402



CUSTOMER SIGNATURE

[Signature]

DRIVER SIGNATURE

[Signature]





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SERVICE TICKET  
**158337**

Division of BFI Waste Systems

Cash ☐

Visa / MC ☐

Check # \_\_\_\_\_

C.O.D.

Amount \$ \_\_\_\_\_

Customer Name

City of Plainwell

Address

129 Fairlane

Relocated To \_\_\_\_\_

Bldg. # \_\_\_\_\_

Job # \_\_\_\_\_

Cont. #

20130

Size

20

Yards \_\_\_\_\_

Time In

6:20

Time Out

6:50

Total Minutes

30

Weight \_\_\_\_\_

Delivered ☒

Relocated ☐

Dumped ☐

Done ☐

S/O \_\_\_\_\_

Product \_\_\_\_\_

Destination \_\_\_\_\_

AUTO/MANUAL: ☐ (M)

ON CALL ☐

EXTRA ☐

SPECIAL ☐

ACCT. NO:

\_\_\_\_\_

LOC. CODE:

\_\_\_\_\_

SERV. DATE:

9-23-94

TRANS CODE:

\_\_\_\_\_

TRANS. DESG:

\_\_\_\_\_

SYS CODE:

\_\_\_\_\_

RTE:

402

NBR OF HAULS:

\_\_\_\_\_

CONT SIZE:

20.

VOL CODE:

\_\_\_\_\_

COMP: ☐

ON CALL: ☐

HAUL CHRG:

\_\_\_\_\_

DISP CHRG:

\_\_\_\_\_

OTHER CHRG:

\_\_\_\_\_

DISP COST:

\_\_\_\_\_

DISP VOL:

\_\_\_\_\_

VOL CODE:

\_\_\_\_\_

DISP SITE:

\_\_\_\_\_

ACTUAL DISP SITE:

\_\_\_\_\_

ACTUAL DISP DATE:

\_\_\_\_-\_\_\_\_-\_\_\_\_

SERV MINUTES:

20

TRUCK NBR:

402

DRIVER NBR:

401



CUSTOMER SIGNATURE: \_\_\_\_\_

*[Signature]*

DRIVER SIGNATURE: \_\_\_\_\_

*[Signature]*



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55 MIN AT WESTSIDE WAITING TO  
BE APPROVED.  
SERVICE TICKET  
160083

Division of BFI Waste Systems

Cash ☐ Visa / MC ☐ Check # \_\_\_\_\_

C.O.D.  
Amount \$ \_\_\_\_\_

Customer Name City of Plainwell

Address 129 Fairlane

Relocated To \_\_\_\_\_

Bldg. # \_\_\_\_\_ Job # \_\_\_\_\_ Cont # 92 Size 20 Yards 20

Time In 6:55 Time Out 10:05 Total Minutes 190 Weight \_\_\_\_\_

Delivered ☐ Relocated ☐ Dumped ☒ Done ☐ S/O 92 / 20130

Product SEWER SLUDGE

Destination WSS

AUTO/MANUAL: ☐ (A/M)

ON CALL ☐ EXTRA ☐ SPECIAL ☐

ACCT. NO: \_\_\_\_\_

LOC. CODE: \_\_\_\_\_

SERV. DATE: 9-23-94

TRANS CODE: \_\_\_\_\_

TRANS. DESC: \_\_\_\_\_

SYS CODE: \_\_\_\_\_

RTE: 402

NBR OF HAULS: \_\_\_\_\_

CONT SIZE: 20

VOL CODE: \_\_\_\_\_

COMP ☐ ON CALL: ☐

HAUL CHRG: \_\_\_\_\_

DISP CHRG: \_\_\_\_\_

OTHER CHRG: \_\_\_\_\_

DISP COST: \_\_\_\_\_

DISP VOL: \_\_\_\_\_

VOL CODE: \_\_\_\_\_

DISP SITE: WSS

ACTUAL DISP SITE: \_\_\_\_\_

ACTUAL DISP DATE: 09-23-94

SERV MINUTES: 190

TRUCK NBR: 402

DRIVER NBR: 401



CUSTOMER SIGNATURE: [Signature]

DRIVER SIGNATURE: Paul

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25 MIN WASHING SERVICE TICKET  
OUT BOX #92 159153

Division of BFI Waste Systems

Cash ☐

Visa / MC ☐

Check # \_\_\_\_\_

C.O.D.

Amount \$ \_\_\_\_\_

Customer Name

CITY OF PLAINWELL

Address

PLAINWELL

Relocated To \_\_\_\_\_

Bldg. # \_\_\_\_\_

Job # \_\_\_\_\_

Cont. #

92

Size

20

Yards

20

Time In

7:25

Time Out

10:05

Total Minutes

160

Weight \_\_\_\_\_

Delivered ☐

Relocated ☐

Dumped ☒

Done ☐

S/O

92 / 2018

Product

SEWER SLODGE

Destination

WSS

AUTO/MANUAL: ☐ (M)

ON CALL ☐ EXTRA ☐ SPECIAL ☐

ACCT. NO:

\_\_\_\_\_

LOC. CODE:

\_\_\_\_\_

SERV. DATE:

09-26-94

TRANS. CODE:

\_\_\_\_\_

TRANS. DESO:

\_\_\_\_\_

SYS CODE:

\_\_\_\_\_

RTE:

452

NBR OF HAULS:

\_\_\_\_\_

CONT. SIZE:

20

VOL CODE:

\_\_\_\_\_

COMP: ☐

ON CALL: ☐

HAUL CHRG:

\_\_\_\_\_

DISP CHRG:

\_\_\_\_\_

OTHER CHRG:

\_\_\_\_\_

DISP COST:

\_\_\_\_\_

DISP VOL:

\_\_\_\_\_

VOL CODE:

\_\_\_\_\_

DISP SITE:

WSS

ACTUAL DISP SITE:

\_\_\_\_\_

ACTUAL DISP DATE:

09-26-94

SERV MINUTES:

160

TRUCK NBR:

452

DRIVER NBR:

402



CUSTOMER SIGNATURE:

Don Martin

DRIVER SIGNATURE:

Earl



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SERVICE TICKET  
**159156**

Division of BFI Waste Systems

Cash ☐ Visa/MC ☐ Check # \_\_\_\_\_

C.O.D.  
Amount \$ \_\_\_\_\_

Customer Name

CITY OF PLAINWELL

Address

PLAINWELL

Relocated To \_\_\_\_\_

Bldg. # \_\_\_\_\_

Job # \_\_\_\_\_

Cont. #

20130

Size

20

Yards

20

Time In

8:55

Time Out

11:10

Total Minutes

135

Weight \_\_\_\_\_

Delivered ☐

Relocated ☐

Dumped ☒

Done ☐

S/O

20130 / 20118

Product

SEWER SLUDGE

Destination

WSS

AUTO/MANUAL: ☐ (A) ☐ (M)

ON CALL ☐ EXTRA ☐ SPECIAL ☐

ACCT. NO:

\_\_\_\_\_

LOC. CODE:

\_\_\_\_\_

SERV. DATE:

09-27-94

TRANS CODE:

\_\_\_\_\_

TRANS. DESC:

\_\_\_\_\_

SYS CODE:

\_\_\_\_\_

RTE:

402

NBR OF HAULS:

\_\_\_\_\_

CONT SIZE:

20

VOL CODE:

\_\_\_\_\_

COMP: ☐

ON CALL: ☐

HAUL CHRG:

\_\_\_\_\_

DISP CHRG:

\_\_\_\_\_

OTHER CHRG:

\_\_\_\_\_

DISP COST:

\_\_\_\_\_

DISP VOL:

\_\_\_\_\_

VOL CODE:

\_\_\_\_\_

DISP SITE:

WSS

ACTUAL DISP SITE:

\_\_\_\_\_

ACTUAL DISP DATE:

09-27-94

SERV MINUTES:

135

TRUCK NBR:

402

DRIVER NBR:

402



CUSTOMER SIGNATURE

[Signature]

DRIVER SIGNATURE

[Signature]



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SERVICETICKET  
159157

Division of BFI Waste Systems

Cash ☐

Visa / MC ☐

Check #

C.O.D.

Amount \$

Customer Name

CITY OF PLAINWELL

Address

PLAINWELL

Relocated To

Bldg. #

Job #

Cont #

20118

Size

20

Yards

20

Time In

11:15

Time Out

1:25

Total Minutes

1:30

Weight

Delivered ☐

Relocated ☐

Dumped ☒

Done ☐

S/O

20118 / 20130

Product

SEWER SLUDGE

Destination

LWSS

AUTO/MANUAL

(A/M)

ON CALL ☐

EXTRA ☐

SPECIAL ☐

ACCT. NO:

LOC. CODE:

SERV. DATE:

09-27-94

TRANS CODE:

TRANS. DESQ:

SYS CODE:

RTE:

402

NBR OF HAULS:

CONT SIZE:

32

VOL CODE:

COMP:

ON CALL:

HAUL CHRG:

DISP CHRG:

OTHER CHRG:

DISP COST:

DISP VOL:

VOL CODE:

DISP SITE:

LWSS

ACTUAL DISP SITE:

ACTUAL DATE:

09-27-94

SERV MINUTES:

1:30

TRUCK NBR:

DRIVER NBR:

402



CUSTOMER SIGNATURE

(Signature)

DRIVER SIGNATURE

(Signature)



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SERVICE TICKET  
**158492**

Division of BFI Waste Systems

Cash ☐

Visa / MC ☐

Check # \_\_\_\_\_

C.O.D.

Amount \$ \_\_\_\_\_

Customer Name

CITY OF PLAINWELL

Address

PLAINWELL

Relocated To \_\_\_\_\_

Bldg. # \_\_\_\_\_

Job # \_\_\_\_\_

Cont #

20130

Size

30

Yards

20

Time In 7:20

Time Out 9:35

Total Minutes

135

Weight \_\_\_\_\_

Delivered ☐

Relocated ☐

Dumped ☒

Done ☐

S/O

20130 / 20118

Product

SEWER SLUDGE

Destination

WSS

AUTO/MANUAL: ☐ (A/M)

ON CALL ☐

EXTRA ☐

SPECIAL ☐

ACCT. NO: \_\_\_\_\_

LOC. CODE: \_\_\_\_\_

SERV. DATE: 09-28-94

TRANS CODE: \_\_\_\_\_

TRANS. DESC: \_\_\_\_\_

SYS CODE: \_\_\_\_\_

RTE: 402

NBR OF HAULS: \_\_\_\_\_

CONT SIZE: \_\_\_\_\_

20

VOL CODE: \_\_\_\_\_

COMP ☐

ON CALL: ☐

HAUL CHRG: \_\_\_\_\_

DISP CHRG: \_\_\_\_\_

OTHER CHRG: \_\_\_\_\_

DISP COST: \_\_\_\_\_

DISP VOL: \_\_\_\_\_

VOL CODE: \_\_\_\_\_

DISP SITE: WSS

ACTUAL DISP SITE: \_\_\_\_\_

ACTUAL DISP DATE: 09-28-94

SERV MINUTES: 135

TRUCK NBR: 402

DRIVER NBR: 402



CUSTOMER SIGNATURE: [Signature]

DRIVER SIGNATURE: [Signature]



Division of BFI Waste Systems

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SERVICE TICKET  
158696

C.O.D. Amount \$

Cash ☐ Visa/MC ☐ Check #

Customer Name

Address

Bldg. #

Time In

Delivered ☐

Product

ON CALL ☐

ACCT NO.

TRANS CODE

SYS CODE

CONT SIZE

HAUL CHRG.

DISP COST

DISP SITE

SERV MINUTES

Job

Time Out

Relocated ☐

Relocated ☐

Relocated ☐

Relocated ☐

Relocated ☐

Relocated ☐

Relocated ☐

Relocated ☐

Relocated ☐

Total Minutes

Relocated

Relocated

Relocated

Relocated

Relocated

Relocated

Relocated

Relocated

Relocated

Relocated

Relocated

Size

Weight

Yards

Yards

Yards

Yards

Yards

Yards

Yards

Yards

Yards

Yards

Yards

SERV DATE

SERV DATE

SERV DATE

SERV DATE

SERV DATE

SERV DATE

SERV DATE

SERV DATE

SERV DATE

SERV DATE

SERV DATE

CUSTOMER SIGNATURE

CUSTOMER SIGNATURE

CUSTOMER SIGNATURE

CUSTOMER SIGNATURE

CUSTOMER SIGNATURE

CUSTOMER SIGNATURE



100 East North Street  
P.O. Box 51427  
Kalamazoo, MI 49005-1427  
(616) 381-2226 • FAX (616) 381-9559

SERVICE TICKET  
158696

Division of BFI Waste Systems

Cash ☐ Visa / MC ☐ Check # \_\_\_\_\_

C.O.D.  
Amount \$ \_\_\_\_\_

Customer Name

CITY OF PLAINWELL

Address

PLAINWELL

Relocated To \_\_\_\_\_

Bldg. # \_\_\_\_\_

Job # \_\_\_\_\_

Cont. #

20130

Size

20

Yards

20

Time In

11:00

Time Out

1:10

Total Minutes

130

Weight \_\_\_\_\_

Delivered ☐

Relocated ☐

Dumped ☒

Done ☐

S/O

20130 / 20118

Product

SEWER SLUDGE

Destination

WSS

AUTO/MANUAL: ☐ (M)

ON CALL ☐ EXTRA ☐ SPECIAL ☐

ACCT. NO:

\_\_\_\_\_

LQC CODE:

\_\_\_\_\_

SERV. DATE:

09-29-94

TRANS CODE:

\_\_\_\_\_

TRANS. DESC:

\_\_\_\_\_

SYS CODE:

\_\_\_\_\_

RTE:

402

NBR OF HAULS:

\_\_\_\_\_

CONT SIZE:

20

VOL CODE:

\_\_\_\_\_

COMP:

\_\_\_\_\_

ON CALL:

\_\_\_\_\_

HAUL CHRG:

\_\_\_\_\_

DISP CHRG:

\_\_\_\_\_

OTHER CHRG:

\_\_\_\_\_

DISP COST:

\_\_\_\_\_

DISP VOL:

\_\_\_\_\_

VOL CODE:

\_\_\_\_\_

DISP SITE:

WSS

ACTUAL DISP SITE:

\_\_\_\_\_

ACTUAL DISP DATE:

09-29-94

SERV MINUTES:

130

TRUCK NBR:

402

DRIVER NBR:

402



CUSTOMER SIGNATURE

*[Signature]*

DRIVER SIGNATURE

*[Signature]*





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SERVICE TICKET  
158559

Division of BFI Waste Systems

Cash ☐ Visa/MC ☐ Check # \_\_\_\_\_

C.O.D.  
Amount \$ \_\_\_\_\_

Customer Name

CITY OF PLAINWELL

Address

M-89 DEPT PUB WORKS

Relocated To \_\_\_\_\_

Bldg. # \_\_\_\_\_

Job # \_\_\_\_\_

Cont. #

80118

Size

20

Yards

20

Time In

705

Time Out \_\_\_\_\_

Total Minutes \_\_\_\_\_

Weight \_\_\_\_\_

Delivered ☐

Relocated ☐

Dumped ☒

Done ☐

S/O \_\_\_\_\_

Product

SLUDGE

Destination

WSR

AUTO/MANUAL: ☐ (A/M)

ON CALL ☐ EXTRA ☐ SPECIAL ☐

ACCT. NO:

\_\_\_\_\_

LOC. CODE:

\_\_\_\_\_

SERV. DATE:

10-01-94

TRANS CODE:

\_\_\_\_\_

TRANS. DESC:

\_\_\_\_\_

SYS CODE:

\_\_\_\_\_

RTE:

\_\_\_\_\_

NBR OF HAULS:

\_\_\_\_\_

CONT SIZE:

20

VOL CODE:

\_\_\_\_\_

COMP: ☐

ON CALL: ☐

HAUL CHRG:

\_\_\_\_\_

DISP CHRG:

\_\_\_\_\_

OTHER CHRG:

\_\_\_\_\_

DISP COST:

\_\_\_\_\_

DISP VOL:

\_\_\_\_\_

VOL CODE:

\_\_\_\_\_

DISP SITE:

WSR

ACTUAL DISP SITE:

\_\_\_\_\_

ACTUAL DISP DATE:

\_\_\_\_-\_\_\_\_-\_\_\_\_

SERV MINUTES:

\_\_\_\_\_

TRUCK NBR:

\_\_\_\_\_

DRIVER NBR:

\_\_\_\_\_



CUSTOMER SIGNATURE:

Terry [Signature]

DRIVER SIGNATURE:

[Signature]



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393002  
SERVICE TICKET  
157113

Division of BFI Waste Systems

Cash ☐ Visa/MC ☐ Check # \_\_\_\_\_

C.O.D.  
Amount \$ \_\_\_\_\_

Customer Name City of Plainwell

Address 129 Fairlane

Relocated To \_\_\_\_\_

Bldg. # \_\_\_\_\_

Job # \_\_\_\_\_

Cont # 20130

Size 20

Yards 20

Time In 6:45

Time Out 8:55

Total Minutes 130

Weight \_\_\_\_\_

Delivered ☐

Relocated ☐

Dumped ☒

Done ☐

S/O \_\_\_\_\_

Product Sludge

Destination WSL

AUTO/MANUAL ☐ (A/M)

ON CALL ☐ EXTRA ☐ SPECIAL ☐

ACCT. NO: \_\_\_\_\_

LOG. CODE: \_\_\_\_\_

SERV. DATE: 10-4-94

TRANS. CODE: \_\_\_\_\_

TRANS. DESC: \_\_\_\_\_

SYS. CODE: \_\_\_\_\_

RTE: H01

NBR OF HAULS: \_\_\_\_\_

CONT. SIZE: 20.0

VOL. CODE: \_\_\_\_\_

COMP. ☐

ON CALL: ☐

HAUL CHRG: \_\_\_\_\_

DISP. CHRG: \_\_\_\_\_

OTHER CHRG: \_\_\_\_\_

DISP. COST: \_\_\_\_\_

DISP. VOL: \_\_\_\_\_

VOL. CODE: \_\_\_\_\_

DISP. SITE: WSL

ACTUAL DISP. SITE: WSL

ACTUAL DISP. DATE: 10-10-94

SERV. MINUTES: 130

TRUCK NBR: 402

DRIVER NBR: 409



CUSTOMER SIGNATURE: [Signature]

DRIVER SIGNATURE: [Signature]

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SERVICE TICKET  
**160217**

Division of BFI Waste Systems

Cash ☐

Visa/MC ☐

Check #

C.O.D.

Amount \$

Customer Name

CITY OF PLAINVILLE

Address

PLAINVILLE

Relocated To

Bldg. #

Job #

Cont #

20118

Size

20

Yards

20

Time In

7:05

Time Out

9:15

Total Minutes

130

Weight

Delivered ☐

Relocated ☐

Dumped ☒

Done ☐

S/O

20118 / 20130

Product

Sewer Sludge

Destination

WSS

AUTO/MANUAL: ☐

(A/M)

ON CALL ☐

EXTRA ☐

SPECIAL ☐

ACCT. NO:

155

LOC. CODE:

402

SERV. DATE:

10-05-94

TRANS CODE:

20

TRANS. DESC:

402

SYS CODE:

20

RTE:

402

NBR OF HAULS:

1

CONT SIZE:

20

VOL CODE:

20

COMP:

ON CALL:

1

HAUL CHRG:

1.00

DISP CHRG:

1.00

OTHER CHRG:

1.00

DISP COST:

1.00

DISP VOL:

20

VOL CODE:

20

DISP SITE:

WSS

ACTUAL DISP SITE:

WSS

ACTUAL DISP DATE:

10-05-94

SERV MINUTES:

130

TRUCK NBR:

402

DRIVER NBR:

402



CUSTOMER SIGNATURE:

[Signature]

DRIVER SIGNATURE:

2111



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SERVICE TICKET  
**160237**

Division of BFI Waste Systems

Cash ☐ Visa / MC ☐ Check # \_\_\_\_\_

C.O.D.

Amount \$ \_\_\_\_\_

Customer Name

**City of Plainville**

Address

**Plainville**

Relocated To \_\_\_\_\_

Bldg. # \_\_\_\_\_

Job # \_\_\_\_\_

Cont. #

**2018**

Size

**20**

Yards

**20**

Time In

**11:50**

Time Out

**2:05**

Total Minutes

**1:15**

Weight \_\_\_\_\_

Delivered ☐

Relocated ☐

Dumped ☒

Done ☐

S/O

**20118 / 20130**

Product

**Seneca Grade**

Destination

**WSS**

AUTO/MANUAL ☐ (AM)

ON CALL ☐ EXTRA ☐ SPECIAL ☐

ACCT. NO:

\_\_\_\_\_

LOC. CODE:

\_\_\_\_\_

SERV. DATE:

**10-07-94**

TRANS. CODE:

\_\_\_\_\_

TRANS. DESC:

\_\_\_\_\_

SYS. CODE:

\_\_\_\_\_

RTE:

**402**

NBR OF HAULS:

\_\_\_\_\_

CONT. SIZE:

**20**

VOL. CODE:

\_\_\_\_\_

COMP:

☐

ON CALL:

☐

HAUL CHRG:

\_\_\_\_\_

DISP. CHRG:

\_\_\_\_\_

OTHER CHRG:

\_\_\_\_\_

DISP. COST:

\_\_\_\_\_

DISP. VOL:

\_\_\_\_\_

VOL. CODE:

\_\_\_\_\_

DISP. SITE:

**WSS**

ACTUAL DISP. SITE:

\_\_\_\_\_

ACTUAL DISP. DATE:

**10-07-94**

SERV. MINUTES:

**1:15**

TRUCK NBR:

**402**

DRIVER NBR:

**402**



CUSTOMER SIGNATURE

*Don Muntz*

DRIVER SIGNATURE

*Carl*



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SERVICE TICKET  
**160235**

Division of BFI Waste Systems

Cash ☐ Visa/MC ☐ Check # \_\_\_\_\_

C.O.D.  
Amount \$ \_\_\_\_\_

Customer Name

**CITY OF PLAINVILLE**

Address

**PLAINVILLE**

Relocated To \_\_\_\_\_

Bldg. # \_\_\_\_\_

Job # \_\_\_\_\_

Cont. #

**20130**

Size

**20**

Yards

**25**

Time In

**7:20**

Time Out

**9:25**

Total Minutes

**125**

Weight \_\_\_\_\_

Delivered ☐

Relocated ☐

Dumped ☒

Done ☐

S/O **20130/20118**

Product

**SEWER SLUDGE**

Destination

**WSS**

AUTO/MANUAL: ☐

(A/M)

ON CALL ☐ EXTRA ☐ SPECIAL ☐

ACCT. NO:

\_\_\_\_\_

LOC. CODE

\_\_\_\_\_

SERV. DATE:

**10-07-94**

TRANS. CODE:

\_\_\_\_\_

TRANS. DESC:

\_\_\_\_\_

SYS. CODE:

\_\_\_\_\_

RTE:

**402**

NBR OF HAULS:

\_\_\_\_\_

CONT. SIZE:

**20**

VOL. CODE:

\_\_\_\_\_

COMP:

☐

ON CALL:

☐

HAUL CHRG:

\_\_\_\_\_

DISP. CHRG:

\_\_\_\_\_

OTHER CHRG:

\_\_\_\_\_

DISP. COST:

\_\_\_\_\_

DISP. VOL:

\_\_\_\_\_

VOL. CODE:

\_\_\_\_\_

DISP. SITE:

**WSS**

ACTUAL DISP. SITE:

\_\_\_\_\_

ACTUAL DISP. DATE:

**10-07-94**

SERV. MINUTES:

**125**

TRUCK NBR:

**402**

DRIVER NBR:

**402**



CUSTOMER SIGNATURE:

*[Signature]*

DRIVER SIGNATURE:

*[Signature]*



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SERVICE TICKET  
**160648**

Division of BFI Waste Systems

Cash ☐ Visa/MC ☐ Check # \_\_\_\_\_

C.O.D.  
Amount \$ \_\_\_\_\_

Customer Name CITY OF PLAINWELL

Address PLAINWELL Relocated To \_\_\_\_\_

Bldg. # \_\_\_\_\_ Job # \_\_\_\_\_ Cont # 20130 Size 20 Yards 20

Time In 7:15 Time Out 9:40 Total Minutes 145 Weight \_\_\_\_\_

Delivered ☒ Relocated ☐ Dumped ☐ Done ☐ S/O 20130/20118

Product SEWER SLUDGE Destination LOSS AUTO/MANUAL: ☐ (A/M)

ON CALL ☐ EXTRA ☐ SPECIAL ☐

ACCT. NO: \_\_\_\_\_

LOC. CODE: \_\_\_\_\_

SERV. DATE: 10-11-94

TRANS. CODE: \_\_\_\_\_

TRANS. DESC: \_\_\_\_\_

SYS CODE: \_\_\_\_\_

RTE: 402

NBR OF HAULS: \_\_\_\_\_

CONT. SIZE: 20

VOL CODE: \_\_\_\_\_

COMP: ☐

ON CALL: ☐

HAUL CHRG: \_\_\_\_\_

DISP CHRG: \_\_\_\_\_

OTHER CHRG: \_\_\_\_\_

DISP COST: \_\_\_\_\_

DISP VOL: \_\_\_\_\_

VOL CODE: \_\_\_\_\_

DISP SITE: 1255

ACTUAL DISP SITE: \_\_\_\_\_

ACTUAL DISP DATE: 10-11-94

SERV. MINUTES: 145

TRUCK NBR: 402

DRIVER NBR: 402



CUSTOMER SIGNATURE: [Signature]

DRIVER SIGNATURE: [Signature]

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SERVICE TICKET  
**160649**

Division of BFI Waste Systems

Cash ☐ Visa / MC ☐ Check # \_\_\_\_\_

C.O.D.  
Amount \$ \_\_\_\_\_

Customer Name

*CITY OF PRINCEGE*

Address

*PRINCEGE*

Relocated To \_\_\_\_\_

Bldg. # \_\_\_\_\_

Job # \_\_\_\_\_

Cont. #

*20118*

Size

*20*

Yards

*20*

Time In

*9:45*

Time Out

*12:15*

Total Minutes

*150*

Weight \_\_\_\_\_

Delivered ☐

Relocated ☐

Dumped ☒

Done ☐

S/O

*20118 / 20130*

Product

*SEWER SLUDGE*

Destination

*455*

AUTO/MANUAL ☐ (M)

ON CALL ☐

EXTRA ☐

SPECIAL ☐

ACCT. NO. \_\_\_\_\_

LOC. CODE: \_\_\_\_\_

SERV. DATE: *10-11-94*

TRANS CODE: \_\_\_\_\_

TRANS. DESO: \_\_\_\_\_

SYS CODE: \_\_\_\_\_

ITE: *412*

NBR OF HAULS: \_\_\_\_\_

CONT SIZE: \_\_\_\_\_

*20*

VOL CODE: \_\_\_\_\_

COMP ☐

ON CALL ☐

HAUL CHRG: \_\_\_\_\_

DISP CHRG: \_\_\_\_\_

OTHER CHRG: \_\_\_\_\_

DISP COST: \_\_\_\_\_

DISP VOL: \_\_\_\_\_

VOL CODE: \_\_\_\_\_

DISP SITE: *1453*

ACTUAL DISP SITE: \_\_\_\_\_

ACTUAL DISP DATE: *10-11-94*

SERV MINUTES: *150*

TRUCK NBR: *402*

DRIVER NBR: *402*



CUSTOMER SIGNATURE: \_\_\_\_\_

DRIVER SIGNATURE: \_\_\_\_\_

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SERVICE TICKET  
**160035**

Division of BFI Waste Systems

Cash ☐ Visa / MC ☐ Check # \_\_\_\_\_

C.O.D.

Amount \$ \_\_\_\_\_

Customer Name

CITY OF PLAINWELL

Address

PLAINWELL

Relocated To \_\_\_\_\_

Bldg. # \_\_\_\_\_

Job # \_\_\_\_\_

Cont # 20130

Size 20

Yards 20

Time In 11:55

Time Out 1:55

Total Minutes 120

Weight \_\_\_\_\_

Delivered ☐

Relocated ☐

Dumped ☒

Done ☐

S/O 20120 / 20118

Product

Sewer Sludge

Destination

WSS

AUTO/MANUAL: ☐ (A/M)

ON CALL ☐ EXTRA ☐ SPECIAL ☐

ACCT. NO:

\_\_\_\_\_

LOC. CODE:

\_\_\_\_\_

SERV. DATE:

10-12-94

TRANS CODE:

\_\_\_\_

TRANS. DESC:

\_\_\_\_\_

SYS CODE:

\_\_\_\_\_

RTE:

402

NBR OF HAULS:

\_\_\_\_

CONT SIZE:

20

VOL CODE:

\_\_\_\_

COMP:

\_\_\_\_

ON CALL:

\_\_\_\_

HAUL CHRG:

\_\_\_\_\_

DISP CHRG:

\_\_\_\_\_

OTHER CHRG:

\_\_\_\_\_

DISP COST:

\_\_\_\_\_

DISP VOL:

\_\_\_\_\_

VOL CODE:

\_\_\_\_

DISP SITE:

WSS

ACTUAL DISP SITE:

\_\_\_\_

ACTUAL DISP DATE:

10-12-94

SERV MINUTES:

120

TRUCK NBR:

402

DRIVER NBR:

402



CUSTOMER SIGNATURE:

[Signature]

DRIVER SIGNATURE:

[Signature]

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SERVICE TICKET

158253

Division of BFI Waste Systems

Cash ☐ Visa/MC ☐ Check # \_\_\_\_\_

C.O.D.

Amount \$ \_\_\_\_\_

Customer Name

CITY OF PRANKILL

Address

PLAINVILLE

Relocated To \_\_\_\_\_

Bldg. # \_\_\_\_\_

Job # \_\_\_\_\_

Cont. #

20130

Size

20

Yards

20

Time In

10:00

Time Out

12:20

Total Minutes

140

Weight \_\_\_\_\_

Delivered ☐

Relocated ☐

Dumped ☒

Done ☐

S/O \_\_\_\_\_

Product

SEWER SUDGE

Destination

WSS

AUTO/MANUAL: ☐ (A/M)

ON CALL ☐

EXTRA ☐

SPECIAL ☐

ACCT. NO:

\_\_\_\_\_

LOC. CODE:

\_\_\_\_\_

SERV. DATE:

10-13-94

TRANS CODE:

\_\_\_\_\_

TRANS. DESC:

\_\_\_\_\_

SYS CODE:

\_\_\_\_\_

RTE:

402

NBR OF HAULS:

\_\_\_\_\_

CONT SIZE:

20

VOL CODE:

\_\_\_\_\_

COMP: ☐

ON CALL: ☐

HAUL CHRG:

\_\_\_\_\_

DISP CHRG:

\_\_\_\_\_

OTHER CHRG:

\_\_\_\_\_

DISP COST:

\_\_\_\_\_

DISP VOL:

\_\_\_\_\_

VOL CODE:

\_\_\_\_\_

DISP SITE:

WSS

ACTUAL DISP SITE:

\_\_\_\_\_

ACTUAL DISP DATE:

10-13-94

SERV MINUTES:

140

TRUCK NBR:

402

DRIVER NBR:

402



CUSTOMER SIGNATURE

DELIVERED BY

Bill



100 East North Street  
P.O. Box 51427  
Kalamazoo, MI 49005-1427  
(616) 381-2226 • FAX (616) 381-9559

SERVICE TICKET  
**150037**

Division of BFI Waste Systems

Cash ☐ Visa/MC ☐ Check # \_\_\_\_\_

C.O.D.  
Amount \$ \_\_\_\_\_

Customer Name

CITY OF PLAINWELL

Address

PLAINWELL

Relocated To \_\_\_\_\_

Bldg. # \_\_\_\_\_

Job # \_\_\_\_\_

Cont #

20118

Size

20

Yards

26

Time In

7:15

Time Out

9:55

Total Minutes

160

Weight \_\_\_\_\_

Delivered ☐

Relocated ☐

Dumped ☒

Done ☐

S/O

20118 / 20130

Product

SEWER SLUDGE

Destination

WSS

AUTO/MANUAL: ☐ (A/M)

ON CALL ☐ EXTRA ☐ SPECIAL ☐

ACCT. NO:

\_\_\_\_\_

LOC. CODE:

\_\_\_\_\_

SERV. DATE:

10-13-94

TRANS CODE:

\_\_\_\_\_

TRANS. DESC:

\_\_\_\_\_

SYS CODE:

\_\_\_\_\_

RTE:

402

NBR OF HAULS:

\_\_\_\_\_

CONT SIZE:

20

VOL CODE:

\_\_\_\_\_

COMP:

☐

ON CALL:

☐

HAUL CHRG:

\_\_\_\_\_

DISP CHRG:

\_\_\_\_\_

OTHER CHRG:

\_\_\_\_\_

DISP COST:

\_\_\_\_\_

DISP VOL:

\_\_\_\_\_

VOL CODE:

\_\_\_\_\_

DISP SITE:

WSS

ACTUAL DISP SITE:

\_\_\_\_\_

ACTUAL DISP DATE:

10-13-94

SERV MINUTES:

160

TRUCK NBR:

402

DRIVER NBR:

402



CUSTOMER SIGNATURE: \_\_\_\_\_

DRIVER SIGNATURE: \_\_\_\_\_

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SERVICE TICKET

158257

Division of BFI Waste Systems

Cash ☐ Visa / MC ☐ Check # \_\_\_\_\_

C.O.D.

Amount \$ \_\_\_\_\_

Customer Name

CITY OF PIAINWELL

Address

PIAINWELL

Relocated To \_\_\_\_\_

Bldg. # \_\_\_\_\_

Job # \_\_\_\_\_

Cont. #

20150

Size

20

Yards

20

Time In \_\_\_\_\_

Time Out \_\_\_\_\_

Total Minutes \_\_\_\_\_

Weight \_\_\_\_\_

Delivered ☐

Relocated ☐

Dumped ☒

Done ☒

S/O \_\_\_\_\_

Product

Sewer Surge

Destination

WSS

AUTO/MANUAL: ☐ (A/M)

ON CALL ☐

EXTRA ☐

SPECIAL ☐

ACCT. NO. \_\_\_\_\_

LOC. CODE: \_\_\_\_\_

SERV. DATE: 10-17-94

TRANS CODE: \_\_\_\_\_

TRANS. DESC \_\_\_\_\_

SYS CODE: \_\_\_\_\_

RTE. \_\_\_\_\_

402

NBR OF HAULS: \_\_\_\_\_

CONT SIZE: \_\_\_\_\_

20

VOL CODE: \_\_\_\_\_

COMP ☐

ON CALL: ☐

HAUL CHRG: \_\_\_\_\_

DISP CHRG: \_\_\_\_\_

OTHER CHRG: \_\_\_\_\_

DISP COST: \_\_\_\_\_

DISP VOL: \_\_\_\_\_

VOL CODE: \_\_\_\_\_

DISP SITE: \_\_\_\_\_

WSS

ACTUAL DISP SITE: \_\_\_\_\_

ACTUAL DISP DATE: 10-17-94

SERV MINUTES: \_\_\_\_\_

TRUCK NBR: \_\_\_\_\_

402

DRIVER NBR: \_\_\_\_\_

402



CUSTOMER SIGNATURE \_\_\_\_\_

DRIVER SIGNATURE \_\_\_\_\_

Carl

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100 East North Street  
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Kalamazoo, MI 49005-1427  
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SET AT MENASHA  
FOR SPARE

SERVICE TICKET  
158256

Division of BFI Waste Systems

Cash ☐ Visa / MC ☐ Check # \_\_\_\_\_

C.O.D. Amount \$ \_\_\_\_\_

Customer Name CITY OF PLAINWELL

Address PLAINWELL Relocated To \_\_\_\_\_

Bldg. # \_\_\_\_\_ Job # \_\_\_\_\_ Cont # 20118 Size 20 Yards \_\_\_\_\_

Time In 7:15 Time Out 7:50 Total Minutes 35 Weight \_\_\_\_\_

Delivered ☐ Relocated ☐ Dumped ☐ Done ☒ S/O \_\_\_\_\_

Product BOX WAS EMPTY Destination \_\_\_\_\_ AUTO/MANUAL: ☐ (AM)

ON CALL ☐ EXTRA ☐ SPECIAL ☐

ACCT. NO: \_\_\_\_\_

LOC. CODE: \_\_\_\_\_

SERV. DATE: 10-17-94

TRANS. CODE: \_\_\_\_\_

TRANS. DESO: \_\_\_\_\_

SYS. CODE: \_\_\_\_\_

RTE: 402

NBR OF HAULS: \_\_\_\_\_

CONT. SIZE: 20.

VOL. CODE: \_\_\_\_\_

COMP. ☐ ON CALL: ☐

HAUL CHRG. \_\_\_\_\_

DISP. CHRG. \_\_\_\_\_

OTHER CHRG. \_\_\_\_\_

DISP. COST: \_\_\_\_\_

DISP. VOL. \_\_\_\_\_

VOL. CODE: \_\_\_\_\_

DISP. SITE: \_\_\_\_\_

ACTUAL DISP. SITE: \_\_\_\_\_

ACTUAL DISP. DATE: \_\_\_\_\_

SERV. MINUTES: 35

TRUCK NBR: 402

DRIVER NBR: 402



CUSTOMER SIGNATURE \_\_\_\_\_

DRIVER SIGNATURE Fine



100 East North Street  
P.O. Box 51427  
Kalamazoo, MI 49005-1427  
(616) 381-2226 • FAX (616) 381-9559

SERVICE TICKET  
**158254**

Division of BFI Waste Systems

Cash ☐ Visa / MC ☐ Check # \_\_\_\_\_

C.O.D.  
Amount \$ \_\_\_\_\_

Customer Name CITY OF PLAINWELL

Address PLAINWELL Relocated To \_\_\_\_\_

Bldg. # \_\_\_\_\_ Job # \_\_\_\_\_ Cont # 2018 Size 20 Yards 20

Time In 7:15 Time Out 9:35 Total Minutes 140 Weight \_\_\_\_\_

Delivered ☐ Relocated ☐ Dumped ☒ Done ☐ S/O 2018 / 2080

Product Sewer Sludge Destination 4355 AUTO/MANUAL ☐ (A/M)

ON CALL ☐ EXTRA ☐ SPECIAL ☐

ACCT. NO: \_\_\_\_\_

LOC. CODE: \_\_\_\_\_

SERV. DATE: 10-14-94

TRANS CODE: \_\_\_\_\_

TRANS. DESC: \_\_\_\_\_

SYS CODE: \_\_\_\_\_

RTE: 4355

NBR OF HAULS: \_\_\_\_\_

CONT SIZE: 20.

VOL CODE: \_\_\_\_\_

COMP ☐ ON CALL: ☐

HAUL CHRG: \_\_\_\_\_

DISP CHRG: \_\_\_\_\_

OTHER CHRG: \_\_\_\_\_

DISP COST: \_\_\_\_\_

DISP VOL: \_\_\_\_\_

VOL CODE: \_\_\_\_\_

DISP SITE: 4355

ACTUAL DISP SITE: \_\_\_\_\_

ACTUAL DISP DATE: 10-14-94

SERV MINUTES: 140

TRUCK NBR: \_\_\_\_\_

DRIVER NBR: 402



CUSTOMER SIGNATURE \_\_\_\_\_

AGENT SIGNATURE Paul

PRINTED ON RECYCLED PAPER 280-416 (10/93)



# ENVIROLAND BIO SOLIDS DEWATERING COST SUMMARY

Plainwell Wastewater Treatment Plant, 1995

DATE	GALLONS DEWATERED				\$EXPENDED	DATE	CU YDS HAULED				\$EXPENDED
8/29	127,500	gal	x	\$0.06	7,650.00	9/2	20	yds	x	\$17.75	355.00
8/31	22,500	gal	x	0.06	1,350.00	9/7	20	yds	x	17.75	355.00
9/7	127,500	gal	x	0.06	7,650.00	9/9	45	yds	x	17.75	798.75
9/9	45,000	gal	x	0.06	2,700.00	9/15	35	yds	x	17.75	621.25
9/11	45,000	gal	x	0.06	2,700.00	9/19	20	yds	x	17.75	355.00
9/22	105,000	gal	x	0.06	6,300.00	9/21	35	yds	x	17.75	621.25
9/29	105,000	gal	x	0.06	6,300.00	9/26	20	yds	x	17.75	355.00
10/5	127,500	gal	x	0.06	7,650.00	9/27	20	yds	x	17.75	355.00
10/6	60,000	gal	x	0.06	3,600.00	9/28	35	yds	x	17.75	621.25
10/9	127,500	gal	x	0.06	7,650.00	9/29	20	yds	x	17.75	355.00
10/13	15,000	gal	x	0.06	900.00	9/29	20	yds	x	17.75	355.00
10/18	127,500	gal	x	0.06	7,650.00	10/3	35	yds	x	17.75	621.25
10/18	127,500	gal	x	0.06	7,650.00	10/4	35	yds	x	17.75	621.25
10/20	127,500	gal	x	0.06	7,650.00	10/5	35	yds	x	17.75	621.25
10/25	15,000	gal	x	0.06	900.00	10/6	25	yds	x	17.75	443.75
						10/6	20	yds	x	17.75	355.00
						10/9	25	yds	x	17.75	443.75
						10/10	20	yds	x	17.75	355.00
						10/11	25	yds	x	17.75	443.75
						10/12	20	yds	x	17.75	355.00
						10/13	25	yds	x	17.75	443.75
						10/16	20	yds	x	16.50	330.00
						10/17	25	yds	x	16.50	412.50
						10/18	25	yds	x	16.50	412.50
						10/18	20	yds	x	16.50	330.00
						10/19	25	yds	x	16.50	412.50
						10/20	20	yds	x	16.50	330.00
						10/20	25	yds	x	16.50	412.50
						10/25	20	yds	x	16.50	330.00
						10/25	10	yds	x	16.50	165.00
						10/26	25	yds	x	16.50	412.50

**Totals: 1,305,000 gal = \$ 78,300.00**

**Totals To Date:**

**Dewater: 1,305,000 gal = \$ 78,300.00**

**Haul: 745 yds = \$ 13,398.75**

**Set Up Fee: \$ 4400.00**

**Dewater: \$ 78,300.00**

**Haul: \$ 13,398.75**

**Final Total: \$ 91,698.75**

PERMITTEE NAME/ADDRESS (Include  
Facility Name/Location if different)

Name: City of Plainwell  
Address: 141 N. Main Street  
Plainwell, MI 49080-1397

Facility: Plainwell WWTP 124 Fairlane  
Location: Plainwell, MI 49080

NATIONAL POLLUTANT DISCHARGE ESTIMATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

MI0020494

PERMIT NUMBER

SLDP

DISCHARGE NUMBER

Form Approved

OMB No. 2040-0004

Approval expires 10/31/94

MONITORING PERIOD							
FROM	YEAR	MO	DAY	TO	YEAR	MO	DAY
	95	01	01		95	12	31
	(20 71)	(12 71)	(24 71)		(26 71)	(12 71)	(30 71)

PRODUCTION AND USE

NOTE: Read instructions before completing this form

PARAMETER (12 12)		QUANTITY OR LOADING (14 11)			QUALITY OR CONCENTRATION (14 11)			TDS EX (12 01)	SILICA EX (12 01)	SODIUM EX (12 01)
		AVERAGE (14 11)	MAXIMUM (14 11)	UNITS (14 11)	MINIMUM (14 11)	AVERAGE (14 11)	MAXIMUM (14 11)			
ANN. AMT SLUDGE DISP OSED BY OTHER METHOD 49017 + 0 0 SLUDGE	SAMPLE MEASUREMENT	*****	0	( 4A)	*****	*****	*****	****		
	PERMIT REQUIREMENT	*****	REPORT	METRIC TON/YR	*****	*****	*****	****		
ANNUAL AMT OF SLUDGE INCINERATED 49018 + 0 0 SLUDGE	SAMPLE MEASUREMENT	*****	0	( 4A)	*****	*****	*****	****		
	PERMIT REQUIREMENT	*****	REPORT	METRIC TON/YR	*****	*****	*****	****		
ANNUAL SLUDGE PRODUC TION, TOTAL 49019 + 0 0 SLUDGE	SAMPLE MEASUREMENT	*****	97.26	( 4A)	*****	*****	*****	****		
	PERMIT REQUIREMENT	*****	REPORT	METRIC TON/YR	*****	*****	*****	****		
ANNUAL AMOUNT OF SLU DGE LAND APPLIED 49020 + 0 0 SLUDGE	SAMPLE MEASUREMENT	*****	0	( 4A)	*****	*****	*****	****		
	PERMIT REQUIREMENT	*****	REPORT	METRIC TON/YR	*****	*****	*****	****		
ANNUAL AMT. SLUDGE D ISPOSED SURFACE UNIT 49021 + 0 0 SLUDGE	SAMPLE MEASUREMENT	*****	0	( 4A)	*****	*****	*****	****		
	PERMIT REQUIREMENT	*****	REPORT	METRIC TON/YR	*****	*****	*****	****		
ANNUAL AMT SLUDGE DI SPOSED IN LANDFILL 49022 + 0 0 SLUDGE	SAMPLE MEASUREMENT	*****	86.17	( 4A)	*****	*****	*****	****		
	PERMIT REQUIREMENT	*****	REPORT	METRIC TON/YR	*****	*****	*****	****		
ANNUAL AMT SLUDGE TR ANSORTED INTERSTATE 49023 + 0 0 SLUDGE	SAMPLE MEASUREMENT	*****	0	( 4A)	*****	*****	*****	****		
	PERMIT REQUIREMENT	*****	REPORT	METRIC TON/YR	*****	*****	*****	****		

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

Bryan Pond, Superintendent

TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED  
AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED  
ON MY KNOWLEDGE OF THESE PERSONALS PROPERLY RESPONSIBLE FOR  
OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS  
TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE  
SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION PURSUANT  
TO THE PROVISIONS OF THE AND IMPROVEMENT ACT IN USE. I HAVE  
READ USC 1 1310 (Penalties under these statutes may include fines up to  
\$10,000 and or maximum imprisonment of between 6 months and 1 year)

SIGNATURE OF PRINCIPAL EXECUTIVE  
OFFICER OR AUTHORIZED AGENT

TELEPHONE

DATE

616 685-5153

46 02 01

AREA  
CODE

NUMBER

DATE

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)



## SLUDGE DISPOSAL

NAME: City of Plainwell WWTP  
 DATE: September 1996

<u>SLUDGE APPLIED</u>		<u>SLUDGE DATA</u>		<u>FIELD DATA</u>	
DATE	GALLONS		%	PARCEL	AL-MA-33-01
Sept. 20	72,000	SOLIDS	4.00	TOTAL AC	70
Sept. 23	153,000	VOLATILES	56.77	AC APPLIED	54
Sept. 24	72,000	TKN	5.35%	SEASONS	2
Sept. 25	144,000	NH-4	2.90%	OWNER	Paul Hazen
Sept. 26	153,000	NO-3	0.01%	Hectares	21.85
Sept. 30	63,000	P	3.07%	CEC	5.10
		K	0.21%	pH	5.50
				BRAY 1ppm	50
				K ppm	70

Dry Ton	111.69	Metric Tons	101.30
Dry Ton/Ac	2.07	Kg/Ha	4.64
Tot N	58.20	9.80	140.65
Tot P	127.00		N/lb/A
Tot K	8.69		

## METAL LOADING

METALS	mg/kg	lbs/ac	Annual CEC Limit	Kg/Ha	Allowed EPA/Year
Arsenic	3.33	0.01		0.02	2.00
Cr	122.50	0.51		0.57	150.00
Cd	3.43	0.01	0.26	0.02	1.90
Cu	652.50	2.70	6.38	3.03	75.00
Pb	28.25	0.12	25.50	0.13	15.00
Mercury	2.05	0.01		0.01	0.85
Moly	15.25	0.06		0.07	0.90
Ni	79.75	0.33	2.55	0.37	21.00
Sel	5.68	0.02		0.03	5.00
Zn	1275.00	5.27	12.75	5.91	140.00

TOT GAL      657000

September  
(Month)  
City of Plainwell  
(Municipality)  
*Bryan Bond*  
(Superintendent's Signature)

1976  
Michigan

State of Michigan  
Department of Natural Resources

# SLUDGE DISPOSAL SHEET

02 N11033 Ph01  
(Site)  
Owner Paul Hazen  
Acres in Site 70  
Acres this month 54 No. Seasons 02

SLUDGE APPLIED										SLUDGE ANALYSIS AND SOIL LOADING RATES														CROP AND SOIL DATA			
DATE	Gallons of Sewage Sludge	% Solids	% VS	Dry Tons per ac	Nitrogen TKN %	NO <sub>3</sub> %	AVAN lb/ac	Total Phosphorus TP %	Potassium K %	Lead Pb mg/kg	Zinc Zn mg/kg	Copper Cu mg/kg	Nickel Ni mg/kg	Cadmium Cd mg/kg	Cr mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Sept. 20	72,000	4.0	56.77		5.35	2.90	.01	3.07	.21	28.25	1275	652.5	79.75	3.43	12.5												
Sept. 23	153,000																										
Sept. 24	72,000																										
Sept. 25	144,000																										
Sept. 26	153,000																										
Sept. 30	63,000																										
Average		4.0	56.77		5.35	2.90	.01	3.07	.21	28.25	1275	652.5	79.75	3.43	12.5												
T This Month	657,000							140	8.7	.12	5.27	2.70	.33	.06	.51												
T This Year	657,000							140	8.7	.12	5.27	2.70	.33	.06	.51												
L Cumulative										.89	4.92	6.59	1.53	.07	2.27												
REMARKS:																											
Date of waste analysis: <u>8/96</u>																											

# NOTICE AND NECESSARY INFORMATION--PART II

## Part II - To be completed by LAND APPLIERS of Sewage Sludge

If the pollutant levels in the sewage sludge do not meet the pollutant concentration limits in Table 3 then the land applier must provide the owner with the following information:

1. Name of Landowner: Paul Hazen
2. Location of land application site: 02N/11W28PH01 MA-28-1401
3. Number of hectares where the sludge was applied: 6.88
4. Date and time bulk of sewage sludge was applied: September 22+23, 1997 7:30AM - 6:00PM
5. Amount of sludge applied (in metric tons): 42.61

6. Record the amount of each metal and nitrogen applied in pounds per acre or kilograms per hectare:

Units used	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury
<u>lbs/ac.</u>	<u>.09</u>	<u>.06</u>	<u>.71</u>	<u>3.57</u>	<u>.33</u>	<u>.01</u>
	Molybdenum	Nickel	Selenium	Zinc	Nitrogen	
	<u>.09</u>	<u>.64</u>	<u>.12</u>	<u>5.43</u>	<u>126</u>	

If a Class B pathogen reduction alternative was used, (see part I), the following site restrictions must be met. Please check the items below if any of the site restrictions apply:

1. Food crops that may touch the sewage sludge/soil mixture cannot be harvested before the end of the waiting period.
- \_\_\_ a. If harvested parts are totally above the land, wait to harvest for 14 months after the application of sludge.
- \_\_\_ b. If harvested parts are below the land surface and the sludge sat on top of the soil for 4 months before the field was plowed, wait to harvest for 20 months after the initial application of sludge.
- \_\_\_ c. If harvested parts are below the land surface and the sludge was incorporated into the soil within 4 months of being applied wait to harvest 38 months after the initial application.
2. X Feed crops cannot be harvested for 30 days after application of the sludge.
3. \_\_\_ Animals cannot graze on the land for 30 days after application of the sludge.
4. \_\_\_ If harvested turf is used for a lawn or other purpose where there is a high potential for public exposure, then the turf cannot be harvested for 1 year after the application of the sludge to the land.
5. \_\_\_ Public access to land with a high potential (parks, playgrounds, golf courses) for public exposure for 1 year after the application of the sludge.
6. X Public access to land with a low potential (private property, remote or restricted public lands) for public exposure will be restricted for 30 days after the application of the sludge.

If the preparer did not perform vector attraction reduction options (see Part I), then either option 9 or 10 must be performed by the land applier. Please indicate if option 9 or 10 was performed.

Check Appropriate Box:

X Option 9 - Subsurface Injection  
\_\_\_ N/A

\_\_\_ Option 10 - Incorporated into the Soil

## CERTIFICATION

I certify under penalty of law that this document and all attachment were prepared under my direction of supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Donald J. Popma, Land Specialist

Name and Official Title

Type or Print

Donald J. Popma

Signature

11/8/96 NNI

616-530-2853

Area Code and Telephone Number

9-29-97

Date Signed

FORM B-2

# NOTICE AND NECESSARY INFORMATION--PART II

## Part II - To be completed by LAND APPLIERS of Sewage Sludge

If the pollutant levels in the sewage sludge do not meet the pollutant concentration limits in Table 3 then the land applier must provide the owner with the following information:

1. Name of Landowner: Paul Hager
2. Location of land application site: 02 N 11W 33 P 01 MA-33-P 01
3. Number of hectares where the sludge was applied: 7.69
4. Date and time bulk of sewage sludge was applied: September 23-25, 1997 7:30 AM - 6:00 PM
5. Amount of sludge applied (in metric tons): 50.46

6. Record the amount of each metal and nitrogen applied in pounds per acre or kilograms per hectare:

Units used	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury
<u>lbs/ac</u>	<u>.09</u>	<u>.06</u>	<u>.76</u>	<u>3.79</u>	<u>.35</u>	<u>.01</u>
	Molybdenum	Nickel	Selenium	Zinc	Nitrogen	
	<u>.10</u>	<u>.68</u>	<u>.12</u>	<u>5.76</u>	<u>134</u>	

If a Class B pathogen reduction alternative was used, (see part I), the following site restrictions must be met. Please check the items below if any of the site restrictions apply:

1. Food crops that may touch the sewage sludge/soil mixture cannot be harvested before the end of the waiting period:
- ☐ a. If harvested parts are totally above the land, wait to harvest for 14 months after the application of sludge.
  - ☐ b. If harvested parts are below the land surface and the sludge sat on top of the soil for 4 months before the field was plowed, wait to harvest for 20 months after the initial application of sludge.
  - ☐ c. If harvested parts are below the land surface and the sludge was incorporated into the soil within 4 months of being applied wait to harvest 38 months after the initial application.
2. ☒ Feed crops cannot be harvested for 30 days after application of the sludge.
3. ☐ Animals cannot graze on the land for 30 days after application of the sludge.
4. ☐ If harvested turf is used for a lawn or other purpose where there is a high potential for public exposure then the turf cannot be harvested for 1 year after the application of the sludge to the land.
5. ☐ Public access to land with a high potential (parks, playgrounds, golf courses) for public exposure for 1 year after the application of the sludge.
6. ☒ Public access to land with a low potential (private property, remote or restricted public lands) for public exposure will be restricted for 30 days after the application of the sludge.

If the preparer did not perform vector attraction reduction options (see Part I), then either option 9 or 10 must be performed by the land applier. Please indicate if option 9 or 10 was performed.

Check Appropriate Box:

☒ Option 9 - Subsurface Injection  
☐ N/A

☐ Option 10 - Incorporated into the Soil

## CERTIFICATION

I certify under penalty of law that this document and all attachment were prepared under my direction of supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Donald J. Popma Land Specialist

Name and Official Title

Type or Print

Donald J. Popma

Signature

1/8/96 NNI

(616) 530-2853

Area Code and Telephone Number

9-29-97

Date Signed

FORM B-2

# NOTICE AND NECESSARY INFORMATION--PART 2

Land Applier: Michigan Organic Resources, Inc. Preparer: City of Plainwell WWTP

## **Part 2 - To be completed by LAND APPLIERS of Sewage Sludge**

1. Name of Landowner: Keith Cool
2. Location of Land Application Site: 01S11W30KC01
3. Number of hectares applied: 21.0
4. Date(s) bulk sewage sludge was applied: 8/10, 11, 14-16, 1998
5. Amount of sludge applied (in metric tons) : 120.52
6. Record the amount of each metal and nitrogen applied in kilograms per hectare

<u>Metal</u>	<u>Amount</u>	<u>Metal</u>	<u>Amount</u>	<u>Nitrogen</u>
Arsenic	0.010	Mercury	0.010	90
Cadmium	0.013	Molybdenum	0.008	
Chromium	0.459	Nickel	0.301	
Copper	2.752	Selenium	0.001	
Lead	0.210	Zinc	4.298	

**If a Class B pathogen reduction alternative was used, (see part 1), the following site restrictions must be met:**

1. Food crops that may touch the sewage sludge/soil mixture cannot be harvested before the end of the waiting period
  - a. if harvested parts are totally above the land, wait to harvest for 14 months after the application of sewage sludge
  - b. if harvested parts are below the land surface and the sludge remained on the soil for 4 months before the field was plowed, wait to harvest for 20 months after the application of sludge
  - c. if harvested parts are below the land surface and the sludge was incorporated into the soil within 4 months of being applied, wait to harvest 38 months after application
2. Feed crops cannot be harvested for 30 days after the application of the sludge
3. Animals cannot graze on the land for 30 days after the application of sludge
4. if harvested turf is used for a lawn or other purpose where there is a high potential for public exposure then the turf cannot be harvested for 1 year after the application of the sludge to the land
5. Public access to land with a high potential (parks, playgrounds, golf courses, for public exposure for 1 year after the application of the sludge.
6. Public access to the land with a low potential (private property, remote or restricted public lands) for public exposure will be restricted for 30 days after the application of the sludge

**If the preparer did not perform vector attraction reduction options (see Part 1), then either option 9 or 10 must be performed by the land applier. Indicate if option 9 or 10 was performed.**

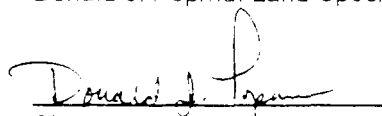
Option: 9 (Subsurface Injection) (9, 10, or N/A)

### **CERTIFICATION**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Donald J. Popma, Land Specialist

616-530-2853



Signature

02/10/98

9-24-98  
Date signed

FORM B-2

## NOTICE AND NECESSARY INFORMATION - PART 2

Land Applier **SYNAGRO TECHNOLOGIES, INC.**

Preparer: **PLAINWELL WWTP**

Part 2 - To be completed by LAND APPLIERS of Sewage Sludge

1. Name of Landowner/Farmer: **PAUL HAZEN**
2. Location of Land Application Site: **02N11W33-PH01**
3. Number of hectares applied: **10.1**
4. Date(s) bulk sewage sludge was applied: **APRIL 14, 1999 - APRIL 16, 1999**
5. Amount of sludge applied (in metric tons): **19.2164**
6. Record the amount of each metal and nitrogen applied in kilograms per hectare:

Metal	Amount
Arsenic	0.0009
Cadmium	0.0044
Chromium	0.0900
Copper	0.5866
Lead	0.0342
Mercury	0.0032
Molybdenum	0.0026
Nickel	0.0556
Selenium	0.0001
Zinc	0.9226

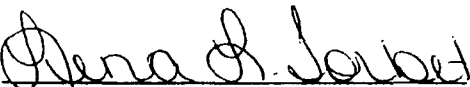
Nitrogen **14.0124**

### CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction of supervision in accordance with a system designed to assume that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Lena L. Torbet, Land Manager

(800) 575-8343

  
Signature

4-21-99  
Date Signed

If a Class B pathogen reduction alternative was used (see Part 1), the following site restrictions must be met:

1. Food crops that may touch the sewage sludge/soil mixture cannot be harvested before the end of the waiting period.
  - a. If harvested parts are totally above the land, wait to harvest for 14 months after the application of sewage sludge.
  - b. If harvested parts are below the land surface and the sludge remained on the soil for 4 months before the field was plowed, wait to harvest for 20 months after the application of sludge.
  - c. If harvested parts are below the land surface and the sludge was incorporated into the soil within 4 months of being applied, wait to harvest 38 months after application.
2. Feed crops cannot be harvested for 30 days after the application of the sludge.
3. Animals cannot graze on the land for 30 days after the application of sludge.
4. If harvested turf is used for a lawn or other purpose where there is a high potential for public exposure, then the turf cannot be harvested for 1 year after the application of the sludge to the land.
5. Public access to land with a high potential (parks, playgrounds, golf courses) for public exposure for 1 year after the application of the sludge.
6. Public access to land with low potential (private property, remote or restricted public lands) for public exposure will be restricted for 30 days after the application of the sludge.

If the preparer did not perform vector attraction reduction options (see Part 1), then either option 9 or 10 must be performed by the land applier. Indicate if option 9 or 10 was performed.

Option: 9 - Subsurface Injection

## NOTICE AND NECESSARY INFORMATION - PART 2

Land Applier **SYNAGRO TECHNOLOGIES, INC.**

Preparer: **PLAINWELL WWTP**

Part 2 - To be completed by LAND APPLIERS of Sewage Sludge

1. Name of Landowner/Farmer: **GEORGE DOSTER**
2. Location of Land Application Site: **01N11W23-GD01**
3. Number of hectares applied: **6.9**
4. Date(s) bulk sewage sludge was applied: **JUNE 7, 1999 - JUNE 8, 1999**
5. Amount of sludge applied (in metric tons): **35.9753**
6. Record the amount of each metal and nitrogen applied in kilograms per hectare:

Metal	Amount
Arsenic	0.0022
Cadmium	0.0081
Chromium	0.3048
Copper	1.4520
Lead	0.1016
Mercury	0.0066
Molybdenum	0.0139
Nickel	0.1179
Selenium	0.0009
Zinc	2.4130

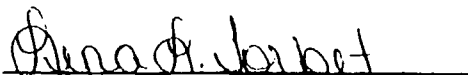
Nitrogen **43.6537**


### CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Lena L. Torbet, Land Manager

(800) 575-8343

  
Signature

  
Date Signed

If a Class B pathogen reduction alternative was used (see Part 1), the following site restrictions must be met:

1. Food crops that may touch the sewage sludge/soil mixture cannot be harvested before the end of the waiting period.
  - a. If harvested parts are totally above the land, wait to harvest for 14 months after the application of sewage sludge.
  - b. If harvested parts are below the land surface and the sludge remained on the soil for 4 months before the field was plowed, wait to harvest for 20 months after the application of sludge.
  - c. If harvested parts are below the land surface and the sludge was incorporated into the soil within 4 months of being applied, wait to harvest 38 months after application.
2. Feed crops cannot be harvested for 30 days after the application of the sludge.
3. Animals cannot graze on the land for 30 days after the application of sludge.
4. If harvested turf is used for a lawn or other purpose where there is a high potential for public exposure, then the turf cannot be harvested for 1 year after the application of the sludge to the land.
5. Public access to land with a high potential (parks, playgrounds, golf courses) for public exposure for 1 year after the application of the sludge.
6. Public access to land with low potential (private property, remote or restricted public lands) for public exposure will be restricted for 30 days after the application of the sludge.

If the preparer did not perform vector attraction reduction options (see Part 1), then either option 9 or 10 must be performed by the land applier. Indicate if option 9 or 10 was performed.

Option: 9 - Subsurface Injection

## NOTICE AND NECESSARY INFORMATION - PART 2

Land Applier **SYNAGRO TECHNOLOGIES, INC.**  
Preparer **PLAINWELL WWTP**

Part 2 - To be completed by LAND APPLIERS of Sewage Sludge

1. Name of Landowner/Farmer: **PAUL HAZEN**
2. Location of Land Application Site: **02N11W33-PH01**
3. Number of hectares applied: **14.2**
4. Date(s) bulk sewage sludge was applied: **JULY 14, 1999 - JULY 16, 1999**
5. Amount of sludge applied (in metric tons): **27.8052**
6. Record the amount of each metal and nitrogen applied in kilograms per hectare:

<b>Metal</b>	<b>Amount</b>
Arsenic	0.0008
Cadmium	0.0031
Chromium	0.1144
Copper	0.5451
Lead	0.0381
Mercury	0.0025
Molybdenum	0.0052
Nickel	0.0443
Selenium	0.0003
Zinc	0.9059

<b>Nitrogen</b>	16.3879
-----------------	---------


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Lena L. Torbet, Land Manager

(800) 575-8343

  
Signature

  
Date Signed

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  - b. If harvested parts are below the land surface and the sludge remained on the soil for 4 months before the field was plowed, wait to harvest for 20 months after the application of sludge.
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If the preparer did not perform vector attraction reduction options (see Part 1), then either option 9 or 10 must be performed by the land applier. Indicate if option 9 or 10 was performed.

Option: 9 - Subsurface Injection



## NOTICE AND NECESSARY INFORMATION - PART 2

Land Applier: **SYNAGRO MIDWEST**

Preparer: **PLAINWELL WWTP**

Part 2 - To be completed by LAND APPLIERS of Sewage Sludge

1. Name of Landowner/Farmer: **PETER JASINSKIS/JIM SINKLER**
2. Location of Land Application Site: **01N13W35-PJ01**
3. Number of hectares applied: **14.2**
4. Date(s) bulk sewage sludge was applied: **NOVEMBER 1, 1999 - NOVEMBER 4, 1999**
5. Amount of sludge applied (in metric tons): **48.2037**
6. Record the amount of each metal and nitrogen applied in kilograms per hectare:

**Metal**      **Amount**

Arsenic	0.0101
Cadmium	0.0090
Chromium	0.1966
Copper	1.0735
Lead	0.0933
Mercury	0.0007
Molybdenum	0.0134
Nickel	0.0868
Selenium	0.0060
Zinc	1.5704

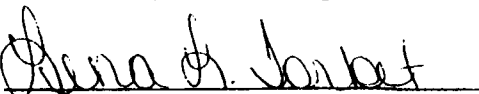
**Nitrogen**      **32.3880**

### CERTIFICATION

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Lena L. Torbet, Technical Manager

(800) 575-8343

  
Signature

12/8/99  
Date Signed

If a Class B pathogen reduction alternative was used (see Part 1), the following site restrictions must be met:

1. Food crops that may touch the sewage sludge/soil mixture cannot be harvested before the end of the waiting period.
  - a. If harvested parts are totally above the land, wait to harvest for 14 months after the application of sewage sludge.
  - b. If harvested parts are below the land surface and the sludge remained on the soil for 4 months before the field was plowed, wait to harvest for 20 months after the application of sludge.
  - c. If harvested parts are below the land surface and the sludge was incorporated into the soil within 4 months of being applied, wait to harvest 38 months after application.
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3. Animals cannot graze on the land for 30 days after the application of sludge.
4. If harvested turf is used for a lawn or other purpose where there is a high potential for public exposure, then the turf cannot be harvested for 1 year after the application of the sludge to the land.
5. Public access to land with a high potential (parks, playgrounds, golf courses) for public exposure for 1 year after the application of the sludge.
6. Public access to land with low potential (private property, remote or restricted public lands) for public exposure will be restricted for 30 days after the application of the sludge.

If the preparer did not perform vector attraction reduction options (see Part 1), then either option 9 or 10 must be performed by the land applier. Indicate if option 9 or 10 was performed.

Option: 9 - Subsurface Injection

## NOTICE AND NECESSARY INFORMATION - PART 2

Land Applier: **SYNAGRO MIDWEST**

Preparer: **PLAINWELL WWTP**

Part 2 - To be completed by LAND APPLIERS of Sewage Sludge

1. Name of Landowner/Farmer: **PAUL HAZEN**
2. Location of Land Application Site: **02N11W33-PH01**
3. Number of hectares applied: **16.2**
4. Date(s) bulk sewage sludge was applied: **OCTOBER 16, 2000 - OCTOBER 19, 2000**
5. Amount of sludge applied (in metric tons): **48.7294**
6. Record the amount of each metal and nitrogen applied in kilograms per hectare:


Metal	Amount
Arsenic	0.0008
Cadmium	0.0058
Chromium	0.2360
Copper	1.8874
Lead	0.1192
Mercury	0.0148
Molybdenum	0.0031
Nickel	0.0650
Selenium	0.0005
Zinc	3.0103

Nitrogen **52.4454**

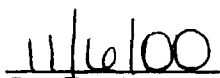
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Lena L. Torbet, Technical Manager

  
Signature

(800) 575-8343

  
Date Signed

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If the preparer did not perform vector attraction reduction options (see Part 1), then either option 9 or 10 must be performed by the land applier. Indicate if option 9 or 10 was performed.

Option: **9 - Subsurface Injection**

## **NOTICE AND NECESSARY INFORMATION - PART 2**

Land Applier: **SYNAGRO MIDWEST**  
Preparer: **PLAINWELL WWTP**

Part 2 - To be completed by LAND APPLIERS of Sewage Sludge

1. Name of Landowner/Farmer: **GARY LANGFORD**
2. Location of Land Application Site: **01N11W16-GL01**
3. Number of hectares applied: **3.6**
4. Date(s) bulk sewage sludge was applied: **MAY 5, 2000 - MAY 8, 2000**
5. Amount of sludge applied (in metric tons): **16.2915**
6. Record the amount of each metal and nitrogen applied in kilograms per hectare:

<b>Metal</b>	<b>Amount</b>
Arsenic	0.0035
Cadmium	0.0121
Chromium	0.3927
Copper	2.7240
Lead	0.1624
Mercury	0.0200
Molybdenum	0.0047
Nickel	0.1910
Selenium	0.0043
Zinc	4.4729

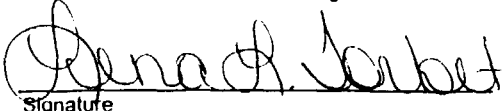
**Nitrogen** **60.2518**

### **CERTIFICATION**

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Lena L. Torbet, Technical Manager

(800) 575-8343

  
Signature

6/8/00  
Date Signed

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Option: 9 - Subsurface Injection

## NOTICE AND NECESSARY INFORMATION - PART 2

Land Applier: **SYNAGRO MIDWEST**  
Preparer: **PLAINWELL WWTP**

Part 2 - To be completed by LAND APPLIERS of Sewage Sludge

1. Name of Landowner/Farmer: **JIM SINKLER**
2. Location of Land Application Site: **01N13W35-JS01**
3. Number of hectares applied: **14.2**
4. Date(s) bulk sewage sludge was applied: **MAY 3, 2000 - MAY 5, 2000**
5. Amount of sludge applied (in metric tons): **36.6933**
6. Record the amount of each metal and nitrogen applied in kilograms per hectare:

Metal	Amount
Arsenic	0.0020
Cadmium	0.0070
Chromium	0.2275
Copper	1.5776
Lead	0.0940
Mercury	0.0116
Molybdenum	0.0027
Nickel	0.1106
Selenium	0.0025
Zinc	2.5905

Nitrogen **34.8954**

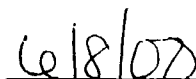
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Option: 9 - Subsurface Injection

April 2001

PLAINWELL

State of Michigan  
Department of Environmental Quality

BIOSOLIDS APPLICATION SHEET

BID Field No.: AL MA33 - F101  
Site No.: MI-AL-MA33-F101  
DNR: 02N01W33-F101  
latitude / longitude: 42°31'14" / 85°37'11"  
# of seasons used: 2  
Acres used this month: 30.0 (12.2 ha)  
Total acres in site: 70.0 (28.4 ha)  
Method of Application: INJECTED

Biosolids Applied

Biosolids Analysis and Soil Loading Rates

Crop and Soil Data

DATE	Amount	Unit	% Solids	% VS	Dry Tons	Nitrogen			Phos.	Potass.	Lead	Zinc	Copper	Nickel	Cadmium	Chrom.	Mercury	Molyb.	Selen.	Arsenic
						TKN %	NH %	NO3 %	%	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
04/30	62000	G	4.6	83.7	12.56	4.79	0.98	0.0061	6.03	0.09	38.6	74.6	571	17.4	1.87	65.6	3.78	4.41	0.33	0.81
Avg.	2067	G	4.60			4.79	0.98	0.0061	6.03	0.09	38.6	74.6	571	17.4	1.87	65.6	3.78	4.41	0.33	0.81
Month:	62000	G	DT/AC	0.42		1b/Ac---->	15 (avan)		51	1	0.03	0.06	0.48	0.01	<.01	0.05	<.01	<.01	<.01	<.01
			DMT/HA	0.94		Kg/ha----->					0.03	0.07	0.54	0.01	<.01	0.06	<.01	<.01	<.01	<.01
Year:	62000	G	DT/AC	0.42		1b/Ac---->	15 (avan)		51	1	0.03	0.06	0.48	0.01	<.01	0.05	<.01	<.01	<.01	<.01
			DMT/HA	0.94		Kg/ha----->					0.03	0.07	0.54	0.01	<.01	0.06	<.01	<.01	<.01	<.01
Cumulative:						1b/Ac----->					1.54	22.47	15.04	2.50	0.16	3.75	0.05	0.02	0.13	0.10
						Kg/ha----->					1.72	25.17	16.84	2.80	0.18	4.20	0.06	0.02	0.15	0.11

Crop to be fertilized: CORN

CEC: 5.0 meq/100g  
pH: 6.1 S.U.  
Bray P1: 106.0 ppm  
K: 100.0 ppm

Crop Yield Goal: 150 B

Nitrogen Recommended: 200 lbs/ac

Acceptable Metal Accumulations

	Total	Yearly
As	36.6	
Cl	4.5	0.22
Cr	2679	
Cl	125	6.25
Pb	267.9	25
Hg	15	
Mb		
Ni	50	2.5
Se	89	
Zn	250	12.5

Average Weight of Biosolids: 8.81 lb/gallon ( )

Date of Biosolids Analysis: 03/12/01 ( )

May 2001

PLAINWELL

*Bye Paul* 7-11-01

State of Michigan  
Department of Environmental Quality  
BIOSOLIDS APPLICATION SHEET

RCD Field No. .... AL MA33 - RH01  
Site No. .... MI-AL-MA33-RH01  
FNR. .... 02N11W33 - RH01  
Latitude / Longitude. .... 42°31'14" / 85°37'11"  
# of seasons used. .... 2  
Acres used this month. .... 30.0 (12.2 ha)  
Total acres in site. .... 70.0 (28.4 ha)  
Method of Application. .... INJECTED

Biosolids Applied						Biosolids Analysis and Soil Loading Rates														Crop and Soil Data																																		
DATE	Amount	Unit	% Solids	% VS	Dry Tons	TKN %	Nitrogen		Phos. %	Potass. %	Lead ng/kg	Zinc mg/kg	Copper mg/kg	Nickel ng/kg	Cadmium ng/kg	Chrom. ng/kg	Mercury mg/kg	Molyb. ng/kg	Selen. ng/kg	Arsenic ng/kg	Crop to be fertilized: CORN																																	
							NH %	NO3 %																																														
05-01	69500	G	5.9	83.7	18.06	4.79	0.98	0.0061	6.03	0.09	38.6	74.6	571	17.4	1.87	65.6	3.78	4.41	0.33	0.81	CEC..... 5.0 meq/100g pH..... 6.1 S.U. Bray P1: 106.0 ppm K..... 100.0 ppm  Crop Yield Goal: 150 B  Nitrogen Recommended: 200 lbs/ac  Acceptable Metal Accumulations <table><tr><th></th><th>Total</th><th>Yearly</th></tr><tr><td>As</td><td>36.6</td><td></td></tr><tr><td>Co</td><td>4.5</td><td>0.22</td></tr><tr><td>Cr</td><td>2679</td><td></td></tr><tr><td>Cu</td><td>125</td><td>6.25</td></tr><tr><td>Pb</td><td>267.9</td><td>25</td></tr><tr><td>Hg</td><td>15</td><td></td></tr><tr><td>Mb</td><td></td><td></td></tr><tr><td>Ni</td><td>50</td><td>2.5</td></tr><tr><td>Se</td><td>89</td><td></td></tr><tr><td>Zn</td><td>250</td><td>12.5</td></tr></table>		Total	Yearly	As	36.6		Co	4.5	0.22	Cr	2679		Cu	125	6.25	Pb	267.9	25	Hg	15		Mb			Ni	50	2.5	Se	89		Zn	250	12.5
	Total	Yearly																																																				
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Ni	50	2.5																																																				
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Zn	250	12.5																																																				
05-02	75000	G	4.1	83.7	13.55	4.79	0.98	0.0061	6.03	0.09	38.6	74.6	571	17.4	1.87	65.6	3.78	4.41	0.33	0.81																																		
05-03	22500	G	8	83.7	7.93	4.79	0.98	0.0061	6.03	0.09	38.6	74.6	571	17.4	1.87	65.6	3.78	4.41	0.33	0.81																																		
05-04	60000	G	3.27	83.7	8.64	4.79	0.98	0.0061	6.03	0.09	38.6	74.6	571	17.4	1.87	65.6	3.78	4.41	0.33	0.81																																		
05-07	105000	G	4.4	83.7	20.35	4.79	0.98	0.0061	6.03	0.09	38.6	74.6	571	17.4	1.87	65.6	3.78	4.41	0.33	0.81																																		
05-08	90000	G	3	83.7	11.89	4.79	0.98	0.0061	6.03	0.09	38.6	74.6	571	17.4	1.87	65.6	3.78	4.41	0.33	0.81																																		
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Month:	422000	G		DT/AC	2.68				Lb/Ac----->	94 (avan)		323	5	0.21	0.40	3.06	0.09	0.01	0.35	0.02	0.02	<.01	<.01																															
				DMT/HA	6.00				Kg/ha----->					0.24	0.45	3.43	0.10	0.01	0.39	0.02	0.02	<.01	<.01																															
Year:	484000	G		DT/AC	3.10				Lb/Ac----->	108 (avan)		374	5	0.24	0.46	3.54	0.11	0.01	0.41	0.02	0.03	<.01	0.01																															
				DMT/HA	6.94				Kg/ha----->					0.27	0.52	3.96	0.12	0.01	0.46	0.02	0.03	<.01	0.01																															
Cumulative:									Lb/Ac----->					1.75	22.87	18.10	2.60	0.17	4.10	0.07	0.05	0.13	0.10																															
									Kg/ha----->					1.96	25.61	20.27	2.91	0.19	4.59	0.08	0.06	0.15	0.11																															



December 2001

MAINELL

RCUD

4/29/02

State of Michigan  
Department of Environmental Quality

## BIOSOLIDS APPLICATION SHEET

BGD Field No.: AL MA33 - FH01  
 Site No.: MI-AL-MA33-FH01  
 DNR: 02N1W33-FH01  
 Latitude / Longitude: 42°31'14" / 85°37'11"  
 # of seasons used: 3  
 Acres used this month: 43.0 (17.4 ha)  
 Total acres in site: 70.0 (28.4 ha)  
 Method of Application: INJECTED

## Biosolids Applied

## Biosolids Analysis and Soil Loading Rates

DATE	Amount	Unit	% Solids	% VS	Dry Tons	TKN %	Nitrogen NH <sub>4</sub> %	NO <sub>3</sub> %	Phos. %	Potass. %	Lead mg/kg	Zinc mg/kg	Copper mg/kg	Nickel mg/kg	Cadmium mg/kg	Chrom. mg/kg	Mercury mg/kg	Molyb. mg/kg	Selen. mg/kg	Arsenic mg/kg	
12-11	20000	G	5.93	53.2	5.20	PLL	7.11	1.11	0.0013	8.18	0.12	63.8	1320	770	22.6	2.27	88.9	2.89	3.85	0.63	0.66
12-12	120000	G	3.8	53.2	20.00	PLL	7.11	1.11	0.0013	8.18	0.12	63.8	1320	770	22.6	2.27	88.9	2.89	3.85	0.63	0.66
12-13	11000	G	3.8	53.2	1.83	PLL	7.11	1.11	0.0013	8.18	0.12	63.8	1320	770	22.6	2.27	88.9	2.89	3.85	0.63	0.66
12-14	89000	G	4.02	53.2	15.69	PLL	7.11	1.11	0.0013	8.18	0.12	63.8	1320	770	22.6	2.27	88.9	2.89	3.85	0.63	0.66
12-15	111000	G	4.02	53.2	19.57	PLL	7.11	1.11	0.0013	8.18	0.12	63.8	1320	770	22.6	2.27	88.9	2.89	3.85	0.63	0.66

## Crop and Soil Data

Crop to be fertilized: CORN

CEC: 5.0 meq/100g

pH: 6.1 S.U.

Bray P1: 106.0 ppm

K: 100.0 ppm

Crop Yield Goal: 150 B

Nitrogen Recommended: 200 lbs/ac

## Acceptable Metal Accumulations

	Total	Crop Year
As	36.6	
Cl	4.5	0.22
Cr	2679	
Cu	125	6.25
Pb	267.9	25
Hg	15	
Mb		
Ni	50	2.5
Se	89	
Zn	250	12.5

Average Weight of Biosolids: 8.77 lb/gallon (PLL)

Date of Biosolids Analysis: 09/21/01 (PLL)

## **Attachment 16**



NOTE: PLEASE READ INSTRUCTIONS FIRST

CITY OF PLAINWELL  
WASTEWATER TREATMENT PLANT

INDUSTRIAL USER  
PERMIT APPLICATION FORM

SECTION A - GENERAL INFORMATION

1) Facility Name: Plainwell Paper Company Inc.

a) Operator Name: Plainwell Paper Company Inc.

b) Is the operator identified in 1.a, the owner of the facility?  
Yes [ X ] No [ ]

If no, provide the name and address of the operator and submit a copy of the contract and/or other documents indicating the operator's scope of responsibility for the facility.

2) Facility Address:

Street: 200 Allegan St.

City: Plainwell State: MI Zip: 49080

3) Business Mailing Address:

Street: Same as above P.O. Box: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

4) Designated signatory authority of the facility:  
[Attach similar information for each authorized representative]

Name: John W. Boyden II

Title: Vice President, Resident Manager

Address: Same as above

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone Number: (616) 686-5851

5) Designated facility contact:

Name: Khaja Naimuddin

Title: Technical Superintendent Environmental

Phone Number: (616) 685-5851

NOTE: PLAINWELL PAPER CO.(PPC) discharges only SANITARY SEWERS without any pretreatment.

**NOTE: PLEASE READ INSTRUCTIONS FIRST**

**SECTION B - BUSINESS ACTIVITY**

- 1) If your facility employs or will be employing processes in any of the industrial categories or business activities listed below (regardless of whether they generate wastewater, waste sludge, or hazardous wastes), place a check beside the category of business activity (check all that apply).

Industrial Categories\*

- ☐ Aluminum Forming
- ☐ Asbestos Manufacturing
- ☐ Battery Manufacturing
- ☐ Can Making
- ☐ Carbon Black
- ☐ Coal Mining
- ☐ Coil Coating
- ☐ Copper Forming
- ☐ Electric and Electronic Components Manufacturing
- ☐ Electroplating
- ☐ Feedlots
- ☐ Fertilizer Manufacturing
- ☐ Foundries (Metal Molding and Casting)
- ☐ Glass Manufacturing
- ☐ Grain Mills
- ☐ Inorganic Chemicals
- ☐ Iron and Steel
- ☐ Leather Tanning and Finishing
- ☐ Metal Finishing
- ☐ Nonferrous Metals Forming
- ☐ Nonferrous Metals Manufacturing
- ☐ Organic Chemicals Manufacturing
- ☐ Paint and Ink Formulating
- ☐ Paving and Roofing Manufacturing
- ☐ Pesticides Manufacturing
- ☐ Petroleum Manufacturing
- ☐ Pharmaceutical
- ☐ Plastic and Synthetic Materials Manufacturing
- ☐ Plastics Processing Manufacturing
- ☐ Porcelain Enamel
- ☒ Pulp, Paper, and Fiberboard Manufacturing
- ☐ Rubber
- ☐ Soap and Detergent Manufacturing
- ☐ Steam Electric
- ☐ Sugar Processing
- ☐ Textile Mills
- ☐ Timber Products

\* A facility with processes inclusive in these business areas may be covered by Environmental Protection Agency's (EPA) categorical pretreatment standards. These facilities are termed "categorical users".

NOTE: PLEASE READ INSTRUCTIONS FIRST

- 2) Give a brief description of all operations at this facility including primary products or services (attach additional sheets if necessary).

Plainwell Paper Company manufactures printing technical papers on three paper machines.

The following principle raw materials are used in our paper making process:

Virgin & Secondary wood pulp, calcium carbonate, titanium dioxide, starches, sizing agents, clays, latex, polymers and other minor additives.

About 2.5 MGD wastewater from the paper mill and steam plant is treated in our activated sludge wastewater treatment plant. The generated is dewatered sludge and hauled for disposal in a certified landfill.

- 3) Indicate applicable Standard Industrial Classification (SIC) for all processes (If more than one applies, list in descending order of importance.):

- a) 2621  
b) \_\_\_\_\_  
c) \_\_\_\_\_  
d) \_\_\_\_\_  
e) \_\_\_\_\_  
f) \_\_\_\_\_

- 4) Product Volume:----- NA

Product	Past Calendar Year NA Amounts Per Day		Estimate This Calendar Year NA Amounts Per Day	
	<u>Average</u>	<u>Maximum</u>	<u>Average</u>	<u>Maximum</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

NOTE: PLEASE READ INSTRUCTIONS FIRST

SECTION C - WATER SUPPLY

1) Water Sources: (Check as many as are applicable)

[X] Private Well  
[ ] Surface Water  
[X] Municipal Water Utility (Specify City): Plainwell, MI  
[ ] Other (Specify): \_\_\_\_\_

2) Name on the water bill:

Name: Plainwell Paper Co.Inc.

Street: 200 Allegan St.

City: Plainwell State: MI Zip: 49080

3) Water service account number: 01-00003001, 01-00001601, 05-00078341  
01-0000600, 01-0000700

4) List average water usage on premises:  
(New facilities may estimate)

Type	Average Water Usage (GPD)	Indicate Estimated (E) or Measured (M)
a) Contact Cooling Water	<u>NA</u>	<u>NA</u>
b) Non-contact Cooling Water	<u>NA</u>	<u>NA</u>
c) Boiler Feed	<u>NA</u>	<u>NA</u>
d) Process	<u>NA</u>	<u>NA</u>
e) Sanitary	<u>10000</u>	<u>M</u>
f) Air Pollution Control	<u>NA</u>	<u>NA</u>
g) Contained in Product	<u>NA</u>	<u>NA</u>
h) Plant and Equipment Washdown	<u>NA</u>	<u>NA</u>
i) Irrigation and Lawn Watering	<u>NA</u>	<u>NA</u>
j) Other	<u>NA</u>	<u>NA</u>
k) TOTAL OF A-J	<u>10000</u>	<u></u>

NOTE: PLEASE READ INSTRUCTIONS FIRST

SECTION D - SEWER INFORMATION

1) a: For Existing Business:

Is the building presently connected to the public sanitary sewer system?

- ☒ Yes: Sanitary sewer account number: \_\_\_\_\_  
☐ No: Have you applied for a sanitary hookup? ☐ Yes ☐ No

b: For New Business:

(i) Will you be occupying an existing vacant building? ☐ Yes ☐ No

(ii) Have you applied for a building permit if a new facility will be constructed? ☐ Yes ☐ No

(iii) Will you be connected to the public sanitary sewer system? ☐ Yes ☐ No

2) List size, descriptive location, and flow of each facility sewer which connects to the City's sewer system. (If more than three, attach additional information on another sheet.)

<u>Sewer Size</u>	<u>Descriptive Location of Sewer Connection or Discharge Point</u>	<u>Average Flow (GPD)</u>
<u>2- 6 Inch Lines:</u>	<u>1) From Basement of Paper Machines</u>	<u>                    </u>
	<u>2) From Cedar St.</u>	<u>                    </u>
<u>                    </u>	<u>                    </u>	<u>                    </u>
<u>                    </u>	<u>                    </u>	<u>                    </u>
	<u>Total of 1)+2)</u>	<u>10000</u>

SECTION E - WASTEWATER DISCHARGE INFORMATION

1) Does (or will) this facility discharge any wastewater other than from restrooms to the City sewer ?

- ☐ Yes If the answer to this question is "yes" complete the remainder of the application.  
☒ No If the answer to this question is "no", skip to Section I.

2) Provide the following information on flow rate.  
(New facilities may estimate)

a) Hours/Day Discharged (e.g., 8 hours/day):

M 24 T 24 W 24 Th 24 F 24 Sat 24 Sun 24

b) Hours of Discharge (e.g., 9 a.m. to 5 p.m.) ----- NA

M            T            W            Th            F            Sat            Sun

NOTE: PLEASE READ INSTRUCTIONS FIRST

c) Peak hourly flow rate (GPD)	<u>6 am to 4 pm</u>
d) Maximum daily flow rate (GPD)	<u>Not known</u>
e) Annual daily average (GPD)	<u>10000</u>

3) If batch discharge occurs or will occur, indicate:  
(New facilities may estimate)

a) Number of batch discharges NA per day

b) Average discharge per batch NA gallons

c) Time of batch discharges:  
NA at NA  
(days of week) (hours of day)

d) Flow Rate NA gallons per minute

e) Percent of total discharge NA

NA 4) Schematic Flow Diagram - For each major activity in which wastewater is ( or will be ) generated, draw a diagram of the flow of materials, products, water and wastewater from the start of the activity to its completion, showing all unit processes. Indicate which processes use water and which generate wastestreams. Include the average daily volume and maximum daily volume of each wastestream ( new facilities may estimate ). If estimates are used for flow data this must be indicated. Number each unit process having wastewater discharges to the community sewer. Use these numbers when showing this unit in the building layout in Section H.

(Use additional sheets if necessary)

NA

**NOTE: PLEASE READ INSTRUCTIONS FIRST**

Facilities that checked activities in question 1 of section B are considered Categorical Industrial Users and should skip to question 6.

- 5) For Non-Categorical Users Only: List average wastewater discharge, maximum discharge, and type of discharge (batch, continuous, or both), for each plant process. Include the reference number from the process schematic that corresponds to each process. (New facilities should provide estimates for each discharge).

No.	Process Description	Average Flow (GPD)	Maximum Flow (GPD)	Type of Discharge (batch, continuous, none)

ANSWER QUESTIONS 6 & 7 ONLY IF YOU ARE SUBJECT TO CATEGORICAL PRETREATMENT STANDARDS----- NA

- 6) For Categorical Users: Provide the wastewater discharge flows for each of your processes or proposed processes. Include the reference number from the process schematic that corresponds to each process. (New facilities should provide estimates for each discharge).

NA

No.	Regulated Process	Average Flow (GPD)	Maximum Flow (GPD)	Type of Discharge (batch, continuous, none)

NA

No.	Unregulated Process	Average Flow (GPD)	Maximum Flow (GPD)	Type of Discharge (batch, continuous, none)

NA

**NOTE: PLEASE READ INSTRUCTIONS FIRST**

<u>No.</u>	<u>Dilution</u>	<u>Average Flow (GPD)</u>	<u>Maximum Flow (GPD)</u>	<u>Type of Discharge (batch, continuous, none)</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

NA 7) For Categorical Users Subject to Total Toxic Organic (TTO) Requirements:

Provide the following TTO information.

a) Does (or will) this facility use any of the toxic organics that are listed under the TTO standard of the applicable categorical pretreatment standards by EPA ?

☐ Yes ☐ No

b) Has a baseline monitoring report (BMR) been submitted which contains TTO information ?

☐ Yes ☐ No

c) Has a toxic organics management plan (TOMP) been developed?

☐ Yes, (Please attach a copy) ☐ No

NA 8) Do you have, or plan to have, automatic sampling equipment or continuous wastewater flow metering equipment at this facility ?

Current: Flow Metering ☐ Yes ☐ No ☐ N/A  
 Sampling Equipment ☐ Yes ☐ No ☐ N/A

Planned: Flow Metering ☐ Yes ☐ No ☐ N/A  
 Sampling Equipment ☐ Yes ☐ No ☐ N/A

If so, please indicate the present or future location of this equipment on the sewer schematic and describe the equipment below:

---



---



---



---

9) Are any process changes or expansions planned during the next three years that could alter wastewater volumes or characteristics? Consider production processes as well as air or water pollution treatment processes that may affect the discharge.

NA

☐ Yes ☐ No, (skip question 10)



**NOTE: PLEASE READ INSTRUCTIONS FIRST**

- 10) Briefly describe these changes and their effects on the wastewater volume and characteristics: ( Attach additional sheets if necessary)

NA

- NA 11) Are any materials or water reclamation systems in use or planned ?  
[ ] Yes [ ] No, ( skip question 12 )

- NA 12) Briefly describe recovery process, substance recovered, percent recovered, and the concentration in the spent solution. Submit a flow diagram for each process: ( Attach additional sheets if necessary )

**SECTION F - CHARACTERISTICS OF DISCHARGE** NA

All current industrial users are required to submit monitoring data on all pollutants that are regulated specific to each process. Use the tables provided in this section to report the analytical results. **DO NOT LEAVE BLANKS.** For all other (nonregulated) pollutants, indicate whether the pollutant is known to be present (P), suspected to be present (S), or known not to be present (O), by placing the appropriate letter in the column for average reported values. Indicate on either the top of each table, or on a separate sheet, if necessary, the sample location and type of analysis used. Be sure methods conform to 40 CFR part 136; if they do not indicate what method was used.

New dischargers should use the table to indicate what pollutants will be present or are suspected to be present in the proposed wastestreams by placing a P (expected to be present), S (may be present), or O (will not be present) under the average reported values.

For the required test results on page No 10,11,12&13, Please <sup>10</sup> see the attached sheets: The tests were conducted by Kar Lab.

10

FOR THE REQUIRED TEST RESULTS, PLEASE SEE THE ATTACHED SHEETS. TESTS CONDUCTED BY

KAR LAB

Pollutant	Detection Level Used	Maximum Daily Value		Average of Analysis		Number of Analyses	Units	
		Conc.	Mass	Conc.	Mass		Conc.	Mass
Acenaphthene								
Acrolein								
Acrylonitrile								
Benazidine								
Carbon Tetrachloride								
Chlorobenzene								
1,2,4-Trichlorobenzene								
Hexachlorobenzene								
1,2-Dichloroethane								
1,1,1-Trichloroethane								
Hexachloroethane								
1,1-Dichloroethane								
1,1,2-Trichloroethane								
1,1,2,2-Tetrachloroethane								
Chloroethane								
Bis (2-chloroethyl) ether								
17 Bis (chloro methyl) ether								
2-chloroethyl vinyl ether								
2-chloronaphthalene								
2,4,6-Trichlorophenol								
Parachlorometa cresol								
Chloroform								
2-Chlorophenol								
1,2-Dichlorobenzene								
1,3-Dichlorobenzene								
1,4-Dichlorobenzene								
3,3-Dichlorobenzene								
1,1-Dichloroethylene								
1,2-Trans-dichloroethylene								
2,4-Dichloropheno								
1,2-Dichloropropane								
1,2-Dichloropropylene								
1,3-Dichloropropylene								
2,4-Dimethylphenol								
2,4-Dinitrotoluene								
2,6-Dinitrotoluene								
1,2-Diphenylhydrazine								
Ethylbenzene								
Fluoranthene								
4 Chlorophenyl phenyl ether								

Pollutant	Detection Level Used	Maximum Daily Value		Average of Analysis		Number of Analyses	Units	
		Conc.	Mass	Conc.	Mass		Conc.	Mass
Bis (2-chloroethoxy) methane	_____	_____	_____	_____	_____	_____	_____	_____
Methylene chloride	_____	_____	_____	_____	_____	_____	_____	_____
Methyl chloride	_____	_____	_____	_____	_____	_____	_____	_____
Methyl bromide	_____	_____	_____	_____	_____	_____	_____	_____
Bromoform	_____	_____	_____	_____	_____	_____	_____	_____
Dichlorobromomethane	_____	_____	_____	_____	_____	_____	_____	_____
Chlorodibromomethane	_____	_____	_____	_____	_____	_____	_____	_____
Hexachlorobutadiene	_____	_____	_____	_____	_____	_____	_____	_____
Hexachlorocyclopentadiene	_____	_____	_____	_____	_____	_____	_____	_____
Isophorone	_____	_____	_____	_____	_____	_____	_____	_____
Naphthalene	_____	_____	_____	_____	_____	_____	_____	_____
Nitrobenzene	_____	_____	_____	_____	_____	_____	_____	_____
Nitrophenol	_____	_____	_____	_____	_____	_____	_____	_____
2-Nitrophenol	_____	_____	_____	_____	_____	_____	_____	_____
4-Nitrophenol	_____	_____	_____	_____	_____	_____	_____	_____
2,4-Dinitrophenol	_____	_____	_____	_____	_____	_____	_____	_____
4,6-Dinitro-o-cresol	_____	_____	_____	_____	_____	_____	_____	_____
N-nitrosodimethylamine	_____	_____	_____	_____	_____	_____	_____	_____
N-nitrosodiphenylamine	_____	_____	_____	_____	_____	_____	_____	_____
N-nitrosodi-n-propylamine	_____	_____	_____	_____	_____	_____	_____	_____
Pentachlorophenol	_____	_____	_____	_____	_____	_____	_____	_____
Phenol	_____	_____	_____	_____	_____	_____	_____	_____
Bis (2-ethylhexyl) phthalate	_____	_____	_____	_____	_____	_____	_____	_____
Butyl benzyl phthalate	_____	_____	_____	_____	_____	_____	_____	_____
Di-n-butyl phthalate	_____	_____	_____	_____	_____	_____	_____	_____
Di-n-octyl phthalate	_____	_____	_____	_____	_____	_____	_____	_____
Diethyl phthalate	_____	_____	_____	_____	_____	_____	_____	_____
Dimethyl phthalate	_____	_____	_____	_____	_____	_____	_____	_____
Benzo (a) anthracene	_____	_____	_____	_____	_____	_____	_____	_____
Benzo (a) pyrene	_____	_____	_____	_____	_____	_____	_____	_____
3,4-benzofluoranthene	_____	_____	_____	_____	_____	_____	_____	_____
Benzo (k) fluoroanthene	_____	_____	_____	_____	_____	_____	_____	_____
Chrysene	_____	_____	_____	_____	_____	_____	_____	_____
Acenaphthylene	_____	_____	_____	_____	_____	_____	_____	_____
Anthracene	_____	_____	_____	_____	_____	_____	_____	_____
Benzo (ghi) perylene	_____	_____	_____	_____	_____	_____	_____	_____
Fluorene	_____	_____	_____	_____	_____	_____	_____	_____
Phenanthrene	_____	_____	_____	_____	_____	_____	_____	_____
Dibenzo (a,h) anthracene	_____	_____	_____	_____	_____	_____	_____	_____
Indeno (1,2,3-cd) pyrene	_____	_____	_____	_____	_____	_____	_____	_____
Pyrene	_____	_____	_____	_____	_____	_____	_____	_____

Pollutant	Detection Level Used	Maximum Daily Value		Average of Analysis		Number of Analyses	Units	
		Conc.	Mass	Conc.	Mass		Conc.	Mass
Trichloroethylene	_____	_____	_____	_____	_____	_____	_____	_____
Vinyl Chloride	_____	_____	_____	_____	_____	_____	_____	_____
Aldrin	_____	_____	_____	_____	_____	_____	_____	_____
Dieldrin	_____	_____	_____	_____	_____	_____	_____	_____
Chlordane	_____	_____	_____	_____	_____	_____	_____	_____
4,4'-DDT	_____	_____	_____	_____	_____	_____	_____	_____
4,4'-DDE	_____	_____	_____	_____	_____	_____	_____	_____
4,4'-DDD	_____	_____	_____	_____	_____	_____	_____	_____
Alpha-endosulfan	_____	_____	_____	_____	_____	_____	_____	_____
Beta-endosulfan	_____	_____	_____	_____	_____	_____	_____	_____
Endosulfan sulfate	_____	_____	_____	_____	_____	_____	_____	_____
Endrin	_____	_____	_____	_____	_____	_____	_____	_____
Endrin aldehyde	_____	_____	_____	_____	_____	_____	_____	_____
Heptachlor	_____	_____	_____	_____	_____	_____	_____	_____
Heptachlor epoxide	_____	_____	_____	_____	_____	_____	_____	_____
Alpha-BHC	_____	_____	_____	_____	_____	_____	_____	_____
Beta-BHC	_____	_____	_____	_____	_____	_____	_____	_____
Gamma-BHC	_____	_____	_____	_____	_____	_____	_____	_____
Delta-BHC	_____	_____	_____	_____	_____	_____	_____	_____
PCB-1242	_____	_____	_____	_____	_____	_____	_____	_____
PCB-1254	_____	_____	_____	_____	_____	_____	_____	_____
PCB-1221	_____	_____	_____	_____	_____	_____	_____	_____
PCB-1232	_____	_____	_____	_____	_____	_____	_____	_____
PCB-1248	_____	_____	_____	_____	_____	_____	_____	_____
PCB-1260	_____	_____	_____	_____	_____	_____	_____	_____
PCB-1016	_____	_____	_____	_____	_____	_____	_____	_____
Toxaphene	_____	_____	_____	_____	_____	_____	_____	_____
(TCDD)	_____	_____	_____	_____	_____	_____	_____	_____
Asbestos	_____	_____	_____	_____	_____	_____	_____	_____
Acidity	_____	_____	_____	_____	_____	_____	_____	_____
Alkalinity	_____	_____	_____	_____	_____	_____	_____	_____
Bacteria	_____	_____	_____	_____	_____	_____	_____	_____
BOD5	_____	_____	_____	_____	_____	_____	_____	_____
COD	_____	_____	_____	_____	_____	_____	_____	_____
Chloride	_____	_____	_____	_____	_____	_____	_____	_____
Chlorine	_____	_____	_____	_____	_____	_____	_____	_____
Fluoride	_____	_____	_____	_____	_____	_____	_____	_____
Hardness	_____	_____	_____	_____	_____	_____	_____	_____
Magnesium	_____	_____	_____	_____	_____	_____	_____	_____
MH3-M	_____	_____	_____	_____	_____	_____	_____	_____
Oil and Grease	_____	_____	_____	_____	_____	_____	_____	_____

Pollutant	Detection Level Used	Maximum Daily Value		Average of Analysis		Number of Analyses	Units	
		Conc.	Mass	Conc.	Mass		Conc.	Mass
Kjeldahl N	_____	_____	_____	_____	_____	_____	_____	_____
Nitrate N	_____	_____	_____	_____	_____	_____	_____	_____
Nitrite N	_____	_____	_____	_____	_____	_____	_____	_____
Organic N	_____	_____	_____	_____	_____	_____	_____	_____
Orthophosphate P	_____	_____	_____	_____	_____	_____	_____	_____
Phosphorus	_____	_____	_____	_____	_____	_____	_____	_____
Sodium	_____	_____	_____	_____	_____	_____	_____	_____
Specific Conductivity	_____	_____	_____	_____	_____	_____	_____	_____
Sulfate (SO <sub>4</sub> )	_____	_____	_____	_____	_____	_____	_____	_____
Sulfide (S)	_____	_____	_____	_____	_____	_____	_____	_____
Sulfite (SO <sub>3</sub> )	_____	_____	_____	_____	_____	_____	_____	_____
Antimony	_____	_____	_____	_____	_____	_____	_____	_____
Arsenic	_____	_____	_____	_____	_____	_____	_____	_____
Barium	_____	_____	_____	_____	_____	_____	_____	_____
Beryllium	_____	_____	_____	_____	_____	_____	_____	_____
Cadmium	_____	_____	_____	_____	_____	_____	_____	_____
Chromium	_____	_____	_____	_____	_____	_____	_____	_____
Copper	_____	_____	_____	_____	_____	_____	_____	_____
Cyanide	_____	_____	_____	_____	_____	_____	_____	_____
Lead	_____	_____	_____	_____	_____	_____	_____	_____
Mercury	_____	_____	_____	_____	_____	_____	_____	_____
Nickel	_____	_____	_____	_____	_____	_____	_____	_____
Selenium	_____	_____	_____	_____	_____	_____	_____	_____
Silver	_____	_____	_____	_____	_____	_____	_____	_____
Thallium	_____	_____	_____	_____	_____	_____	_____	_____
Zinc	_____	_____	_____	_____	_____	_____	_____	_____

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x/

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**NOTE: PLEASE READ INSTRUCTIONS FIRST**

**SECTION G - TREATMENT**

1) Is any form of wastewater treatment (see list below) practiced at this facility? ☐ Yes ☒ No

NA 2) Is any form of wastewater treatment (or changes to an existing wastewater treatment) planned for this facility within the next three years?

☐ Yes, describe: \_\_\_\_\_

☐ No

NA3) Treatment devices or processes used or proposed for treating wastewater or sludge (check as many as appropriate).

- ☐ Air Flotation
- ☐ Centrifuge
- ☐ Chemical Precipitation
- ☐ Chlorination
- ☐ Cyclone
- ☐ Filtration
- ☐ Flow equalization
- ☐ Grease or oil separation, type: \_\_\_\_\_
- ☐ Grease Trap
- ☐ Grinding filter
- ☐ Grit removal
- ☐ Ion exchange
- ☐ Neutralization, pH correction
- ☐ Ozonation
- ☐ Reverse osmosis
- ☐ Screen
- ☐ Sedimentation
- ☐ Septic Tank
- ☐ Solvent Separation
- ☐ Spill protection
- ☐ Sump
- ☐ Biological Treatment, type: \_\_\_\_\_
- ☐ Rainwater diversion or storage
- ☐ Other chemical treatment, type: \_\_\_\_\_
- ☐ Other physical treatment, type: \_\_\_\_\_
- ☐ Other, type: \_\_\_\_\_

NA 4) Description

Describe the pollutant loadings, flow rates, design capacity, physical size, and operating procedures of each treatment facility checked above. NA

NA

NA 5) Attach a process flow diagram for each existing treatment system. Include process equipment, by-products, by-product disposal method, waste and by-product volumes, and design and operating conditions.

**NOTE: PLEASE READ INSTRUCTIONS FIRST**

- 6) Describe any changes in treatment or disposal methods planned or under construction for the wastewater discharge to the sanitary sewer. Please include estimated completion dates.

NA

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- 7) Do you have a treatment operator? ☐ Yes ☐ No      NA

(if yes,)      Name: NA

Title: \_\_\_\_\_

Phone: \_\_\_\_\_

Full time: \_\_\_\_\_ (specify hours)

Part time: \_\_\_\_\_ (specify hours)

- 8) Do you have a manual on the correct operation of your treatment equipment?  
☐ Yes ☐ No      NA

- 9) Do you have a written maintenance schedule for your treatment equipment?  
☐ Yes ☐ No      NA

**SECTION H - FACILITY OPERATIONAL CHARACTERISTICS**

NA

1) Shift Information

Work Days	<input type="checkbox"/> Mon	<input type="checkbox"/> Tues	<input type="checkbox"/> Wed	<input type="checkbox"/> Thur	<input type="checkbox"/> Fri	<input type="checkbox"/> Sat	<input type="checkbox"/> Sun
Shifts per work day:	_____	_____	_____	_____	_____	_____	_____
Employee's	_____	_____	_____	_____	_____	_____	_____ 1 <sup>st</sup>
per	_____	_____	_____	_____	_____	_____	_____ 2 <sup>nd</sup>
shift	_____	_____	_____	_____	_____	_____	_____ 3 <sup>rd</sup>
Shift start	_____	_____	_____	_____	_____	_____	_____ 1 <sup>st</sup>
and end	_____	_____	_____	_____	_____	_____	_____ 2 <sup>nd</sup>
times	_____	_____	_____	_____	_____	_____	_____ 3 <sup>rd</sup>



**NOTE: PLEASE READ INSTRUCTIONS FIRST**

2) Indicate whether the business activity is:

- ☒ Continuous through the year, or  
☐ Seasonal- Circle the months of the year during which business activity occurs:

J      F      M      A      M      J      J      A      S      O      N      D

COMMENTS: \_\_\_\_\_

3) Indicate whether the facility discharge is:

- ☒ Continuous through the year, or  
☐ Seasonal- Circle the months of the year during which facility discharge occurs:

J F M A M J J A S O N D

COMMENTS: \_\_\_\_\_

4) Does the operation shut down for vacation, maintenance or other reasons?

- ☐ Yes, indicate reasons and period when shutdown occurs:

☒ No

5) List types and amounts (mass or volume per day) of raw materials used or planned for use (attach list if needed):

NA 6) List types and quantities of chemicals used or planned for use (attach list if needed). Include copies of Manufacturer's Safety Data Sheets for all chemicals identified:

[illegible]

**NOTE: PLEASE READ INSTRUCTIONS FIRST**

NA 7) Building Layout:

Draw to scale the location of each building on the premises. Show map orientation and location of all water meters, storm drains, numbered unit processes (from schematic flow diagram), public sewers, and each facility sewer line connected to the public sewers. Number each sewer and show existing and proposed sampling locations.

A blueprint or drawing of the facilities showing the above items may be attached in lieu of submitting a drawing on this sheet.

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NA as Plainwell Paper Co. discharges only SANITARY SEWERS to the  
to the City WWTP.

**NOTE: PLEASE READ INSTRUCTIONS FIRST**

**SECTION I - SPILL PREVENTION**

1) Do you have chemical storage containers, bins, or ponds at your facility ?

☒ Yes ☐ No

If yes, please give a description of their location, contents, size, type, and frequency and method of cleaning. Also indicate in a diagram or comment on the proximity of these containers to a sewer or storm drain. Indicate if buried metal containers have cathodic protection. All containers and bins are located inside the paper mill and our WWTP.

2) Do you have floor drains in your manufacturing or chemical storage area(s)?

☒ Yes ☐ No If yes, Where do they discharge to ?

**\*\* TO Plainwell Paper Co. WWTP**

3) If you have chemical storage containers, bins, or ponds in manufacturing area, could an accidental spill lead to a discharge to: (check all that apply)

☐ an on-site disposal system

☐ public sanitary sewer system (e.g. through a floor drain)

☐ storm drain

☐ to ground

☐ other, specify:

☒ not applicable, no possible discharge to any of the above routes

**\*\***

4) Do you have an Accidental Spill Prevention Plan (ASPP) to prevent spills of chemicals or slug discharges from entering the Control Authority's collection systems ?

☒ Yes (Please enclose a copy with the application)

☐ No

☐ N/A. Not applicable since there are no floor drains and/or the facility discharges only domestic wastes.

5) Please describe below any previous spill events and remedial measures taken to prevent their recurrence.

NA

**NOTE: PLEASE READ INSTRUCTIONS FIRST**

**SECTION J - NON-DISCHARGED WASTES**

1) Are any waste liquids or sludges generated and not disposed of in the sanitary sewer system ?

- ☐ Yes, please describe below  
☐ No, skip the remainder of Section J.

	Waste Generated	Quantity per year	Disposal Method
a	Paper Sludge	43000 C.Yard	Landfill

2) Indicate which wastes identified above are disposed of at an off-site treatment facility and which are disposed of on-site.

3) If any of your wastes are sent to an off-site centralized waste treatment facility, identify the waste and the facility.

4) If an outside firm removes any of the above checked wastes, state the name(s) and address(es) of all waste haulers:

a) To Cork St. Landfill

b) \_\_\_\_\_

Kalamazoo, MI

\_\_\_\_\_

Permit # \_\_\_\_\_  
 (if applicable): NA

Permit # \_\_\_\_\_  
 (if applicable): \_\_\_\_\_

5) Have you been issued any federal, state, or local environmental permits ?

☒ Yes ☐ No

If yes, please list the permit(s):

NPDES No. MI0003794

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**NOTE: PLEASE READ INSTRUCTIONS FIRST**

## SECTION K - AUTHORIZED SIGNATURES

**Compliance Certification**      **NA**

- 1) Are all applicable Federal, State, or local pretreatment standards and requirements being met on a consistent basis ?  
☐ Yes ☐ No ☐ Not discharging yet NA as we do not have pretreatment plant  
for the Sanitary Sewer.

2) If no:

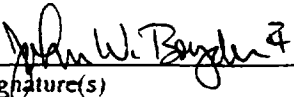
- a) What additional operations and maintenance procedures are being considered to bring the facility into compliance? Also, list additional treatment technology or practice being considered in order to bring the facility into compliance.
- b) Provide a schedule for bringing the facility into compliance. Specify major events planned along with reasonable completion dates. Note that if the Control Authority issues a permit to the applicant, it may establish a schedule for compliance different from the one submitted by the facility.

[illegible]

**NOTE: PLEASE READ INSTRUCTIONS FIRST**

**Authorized Representative Statement:**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

<u>John W. Boyden II</u>	<u>VP, Resident Manager</u>
Name(s)	Title(s)
<u></u>	<u>8/25/97</u>
Signature(s)	Date
	<u>685-5851</u>
	Phone

## LABORATORY REPORT

Client: *Simpson Plainwell Paper Company*

KAR Project No. : **971387**

Date Reported : **05/15/97**

Project Description : *Sampling and analysis of two wastewater discharges.*

Sample ID : <b><u>"Mill Plant, Grab"</u></b>						
Sampled By : <i>SNH of KAR Laboratories</i>				Date Received : <b>5/1/97</b>		
Sample Date : <b>5/1/97</b>				Sample Type : <b>aqueous</b>		
Sample Time : <b>4:24pm</b>				KAR Sample No. : <b>971387-04</b>		
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Cyanide, total	<0.005	mg/L	EPA 335.2	5/8/97	PML	
Flash Point	>200	degrees F.	EPA 1010	5/2/97	RJC	
PH	8.4	S.U.	EPA 150.1	5/1/97	SNH	
Temperature	79	degrees F.	SM Ed18 2550 B	5/1/97	SNH	

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***KAR Laboratories, Inc.*** . . .

**(616) 381-9666**

**Page 5**

## LABORATORY REPORT

Client: *Simpson Plainwell Paper Company*

KAR Project No. : **971387**

Date Reported : **05/15/97**

Project Description : *Sampling and analysis of two wastewater discharges.*

Sample ID : **"Mill Plant, 24 Hr. Composite, 4/30-5/1/97, 3:20pm-4:24pm"**

Sampled By : **SNH of KAR Laboratories**

Date Received : **5/1/97**

Sample Date :

Sample Type : **aqueous**

Sample Time :

KAR Sample No. : **971387-03**

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Cr6	Completed		EPA 218.5	5/2/97	DBL	
Prep, Hg	Completed		EPA 245.2	5/5/97	MTM	
Prep, metals	Completed		EPA 30xx, 200.x	5/5/97	DBL	
Cadmium, total	<0.005	mg/L	EPA 200.7	5/7/97	MTM	
Chromium, hexavalent	<0.05	mg/L	EPA 218.5	5/8/97	MTM	
Chromium, total	<0.01	mg/L	EPA 200.7	5/7/97	MTM	
Copper, total	0.06	mg/L	EPA 200.7	5/7/97	MTM	
Iron, total	0.40	mg/L	EPA 200.7	5/7/97	MTM	
Lead, total, by ICP	<0.05	mg/L	EPA 200.7	5/7/97	MTM	
Mercury, total	<0.0005	mg/L	EPA 245.2	5/6/97	MTM	
Nickel, total	<0.02	mg/L	EPA 200.7	5/7/97	MTM	
Tin, total	<3	mg/L	EPA 282.1	5/13/97	MTM	
Zinc, total	0.26	mg/L	EPA 200.7	5/7/97	MTM	
BOD	376	mg/L	SM(19) 5210 B	5/2/97	RJC	
COD	214	mg/L	SM(18) 5220 D	5/5/97	ALW	
Chlorine demand	18.5	mg/L	SM(19) 2350 B	5/2/97	CCP	
Oil and grease	17	mg/L	EPA 413.1 (grav)	5/13/97	PML	
Phenols, total	0.041	mg/L	EPA 420.1	5/12/97	CCP	
Phosphorus, total (as P)	14.6	mg/L	SM Ed18 4500-P E	5/13/97	ALW	
Suspended solids, total	1190	mg/L	EPA 160.2	5/6/97	PML	

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## LABORATORY REPORT

Client: *Simpson Plainwell Paper Company*

KAR Project No. : **971387**

Date Reported : **05/15/97**

Project Description : *Sampling and analysis of two wastewater discharges.*

Sample ID : **"Waste Treatment, Grab"**

Sampled By : *SNH of KAR Laboratories*

Date Received : **5/1/97**

Sample Date : **5/1/97**

Sample Type : **aqueous**

Sample Time : **4:02pm**

KAR Sample No. : **971387-02**

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Cyanide, total	<0.005	mg/L	EPA 335.2	5/8/97	PML	
Flash Point	>200	degrees F.	EPA 1010	5/2/97	RJC	
PH	7.8	S.U.	EPA 150.1	5/1/97	SNH	
Temperature	61	degrees F.	SM Ed18 2550 B	5/1/97	SNH	

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## LABORATORY REPORT

Client: *Simpson Plainwell Paper Company*

KAR Project No. : **971387**

Date Reported : **05/15/97**

Project Description : *Sampling and analysis of two wastewater discharges.*

Sample ID : ***"Waste Treatment, 24 Hr. Composite, 4/30-5/1/97, 3:08pm-4:02pm"***

Sampled By : *SNH of KAR Laboratories*

Date Received : **5/1/97**

Sample Date :

Sample Type : **aqueous**

Sample Time :

KAR Sample No. : **971387-01**

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep. Cr6	Completed		EPA 218.5	5/2/97	DBL	
Prep. Hg	Completed		EPA 245.2	5/5/97	MTM	
Prep. metals	Completed		EPA 30xx, 200.x	5/5/97	DBL	
Cadmium, total	<0.005	mg/L	EPA 200.7	5/7/97	MTM	
Chromium, hexavalent	<0.05	mg/L	EPA 218.5	5/8/97	MTM	
Chromium, total	<0.01	mg/L	EPA 200.7	5/7/97	MTM	
Copper, total	0.13	mg/L	EPA 200.7	5/7/97	MTM	
Iron, total	0.53	mg/L	EPA 200.7	5/7/97	MTM	
Lead, total, by ICP	0.07	mg/L	EPA 200.7	5/7/97	MTM	
Mercury, total	0.0013	mg/L	EPA 245.2	5/6/97	MTM	
Nickel, total	<0.02	mg/L	EPA 200.7	5/7/97	MTM	
Tin, total	<3	mg/L	EPA 282.1	5/13/97	MTM	
Zinc, total	0.12	mg/L	EPA 200.7	5/7/97	MTM	
BOD	333	mg/L	SM(19) 5210 B	5/2/97	RJC	
COD	600	mg/L	SM(18) 5220 D	5/5/97	ALW	
Chlorine demand	1.4	mg/L	SM(19) 2350 B	5/2/97	CCP	
Oil and grease	60	mg/L	EPA 413.1 (grav)	5/13/97	PML	
Phenols, total	0.214	mg/L	EPA 420.1	5/12/97	CCP	
Phosphorus, total (as P)	11.2	mg/L	SM Ed18 4500-P E	5/13/97	ALW	
Suspended solids, total	122	mg/L	EPA 160.2	5/6/97	PML	

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*KAR Laboratories, Inc.*

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*Company  
AKS Original  
4-16-01*

**INDUSTRIAL USER PERMIT**

CITY OF PLAINWELL  
WASTEWATER TREATMENT PLANT

In accordance with the City of Plainwell's Sewer Use Ordinance (Ordinance No. 274 , adopted August 23, 1998) (referred to herein as the "Sewer Use Ordinance"):

Plainwell Inc.  
200 Allegan St.  
Plainwell, MI 49080

(the "Permittee") is hereby authorized to discharge industrial wastewater from the facility identified above and through the outfall(s) identified in this permit into the City of Plainwell POTW ("POTW") in accordance with the conditions set forth in this permit. Compliance with this permit does not relieve the Permittee of its obligation to comply with any or all applicable pretreatment regulations, standards or requirements under local, state, or federal laws, including any regulations, standards, requirements or laws that may become effective during the term of this permit.

Noncompliance with any term or condition of this permit is a violation of the Sewer Use Ordinance and may also violate other applicable state and federal laws and regulations.

This permit is based on information known to the City as of April 1, 2001.

On its effective date, this permit shall supersede any prior permit or other authorization to discharge, if any.

Date Permit Issued: April 15, 2001

Permit Effective Date: April 15, 2001

Permit Expiration Date: April 15, 2006

Permit Renewal Application  
Must Be Filed No Later Than: November 15, 2005

By: *Bryan Pond* 4-16-01  
Bryan Pond, WWTP Superintendent

**PART 1. EFFLUENT LIMITATIONS AND DISCHARGE PROHIBITIONS.**

- A. During the period beginning on April 15, 2001, and ending on April 15, 2006, the Permittee is authorized to discharge wastewater to the POTW from the outfall(s) described below:

<u>Outfall</u>	<u>Name and/or Location of Outfall and Type of Discharge</u>
<u>001</u>	The 4 inch discharge line located on the discharge side of the old lift pump to the abandoned wastewater treatment plant.
<u>001-A</u>	The sanitary discharge into Cedar St. from the former Simpson Plainwell Paper Wastewater Treatment Facility.

The wastewater authorized to be discharged pursuant to this permit is limited to sanitary sewage (segregated normal strength domestic waste) discharges and process wastewater consisting solely of boiler blow-down, softener brine back-wash, and compressor cooling water. Both outfalls will be used to sample for all applicable limitations.

- B. The discharge from Outfalls 001 and 001-A as authorized by this permit shall not exceed the following specific effluent limitations:

- (1) Pollutants in concentrations that exceed the daily maximum or monthly average concentrations listed below in this subsection:

<u>Parameter</u>	<u>Daily Maximum (ug/l)</u>	<u>4-Day Average (ug/l)</u>	<u>Monthly Average (ug/l)</u>
Arsenic	230	---	230
Cadmium	200	---	200
Chromium (T)	2000	---	2000
Chromium, Hexavalent	100	---	100
Copper	1000	---	1000
Cyanides (T)	100	---	100
Lead	400	---	400
Molybdenum	2000	---	2000
Nickel	1000	---	1000
Selenium	270	---	270
Silver	440	---	440
Zinc	3000	---	3000
Phenols (T)	1500 <sub>1</sub>	---	1500 <sub>1</sub>

<u>Parameter</u>	<u>Daily Maximum (mg/l)</u>	<u>4-Day Average (mg/l)</u>	<u>Monthly Average (mg/l)</u>
Ammonia Nitrogen (NH <sub>3</sub> as N)	260 <sub>2</sub>	---	---
BOD	4700 <sub>3</sub>	---	---
Phosphorous (T)	83 <sub>4</sub>	---	---
TSS	2600 <sub>5</sub>	---	---

*Notes:*

- 1 Total phenol is defined as the sum of any of the following phenolic compounds: 2-Chlorophenol, 4-Chlorophenol, 2,4-Dichlorophenol, 2,4-Dimethylphenol, 2-Methylphenol, 2-Nitrophenol, 4-Nitrophenol and Phenol.

For Ammonia Nitrogen, BOD, Phosphorous and TSS, the listed daily maximum and monthly average limits are the concentrations which may not be exceeded and at which enforcement begins. The surcharge threshold concentrations as specified in notes 3 through 6 below are the concentrations above which surcharges may be imposed. Discharges exceeding the surcharge thresholds, but which are less than the daily maximum and monthly average limits (and which do not violate any other applicable prohibitions, limitations or requirements), are not violations of the Sewer Use Ordinance, but are subject to surcharges as provided by the Sewer Use Ordinance. All exceedences of applicable discharge prohibitions and limitations and all instances of noncompliance with applicable discharge requirements constitute a violation of the Sewer Use Ordinance, subject to applicable fines, penalties and other enforcement actions. In no event shall the imposition of a surcharge for a discharge which does not meet the applicable prohibitions, limitations or requirements be construed as authorizing the illegal discharge or otherwise excuse a violation of the Sewer Use Ordinance.

- 2 Any discharge of ammonia nitrogen in excess of 20 mg/l (daily maximum) shall be subject to surcharge as provided by the Sewer Use Ordinance.
- 3 Any discharge of BOD in excess of 200 mg/l (daily maximum) shall be subject to surcharge as provided by the Sewer Use Ordinance.
- 4 Any discharge of Total Phosphorous in excess of 5 mg/l (daily maximum) shall be subject to surcharge as provided by the Sewer Use Ordinance.
- 5 Any discharge of TSS in excess of 250 mg/l (daily maximum) shall be subject to surcharge as provided by the Sewer Use Ordinance.

(2) Pollutants in concentrations that exceed the instantaneous maximum concentrations listed below in this subsection:

<b><u>Parameter</u></b>	<b><u>Instantaneous Maximum</u></b>
Mercury	Nondetect. Compliance with the nondetect limit shall be determined using the quantification level as follows: Any discharge of mercury at or above the quantification level of 0.2 ug/L is a specific violation of this permit and the Sewer Use Ordinance. In no case shall the quantification level exceed 0.2 ug/L, unless a higher quantification level is approved by the POTW because of sample matrix interference. Mercury sampling procedures, preservation and handling, and analytical protocol for compliance monitoring shall be in accordance with EPA method 245.1. (The method detection limit ("MDL") shall be established pursuant to the procedure for determination of the MDL as set forth in section 3(a) of Appendix B of 40 CFR part 136. The MDL study used to determine the MDL shall be made available to the POTW immediately upon request.)
PCBs (T)	Nondetect. Compliance with the nondetect limit shall be determined using the quantification level as follows: Any discharge of PCBs at or above the quantification level of 0.1 ug/L is a specific violation of this permit and the Sewer Use Ordinance. In no case shall the quantification level exceed 0.1 ug/L, unless a higher quantification level is approved by the POTW because of sample matrix interference. Total PCBs is defined as the sum of any identified Aroclors, including, but not limited to, Aroclors 1242, 1248, 1254 and 1260. In addition, any detected Aroclor-specific

measurements shall be reported. PCB sampling procedures, preservation and handling, and analytical protocol for compliance monitoring shall be in accordance with EPA method 608. (The method detection limit ("MDL") shall be established pursuant to the procedure for determination of MDL as set forth in section 3(a) of Appendix B of 40 CFR part 136. The MDL study used to determine the MDL shall be made available to the POTW immediately upon request.)

- C. The Permittee shall not contribute or cause to be contributed to the POTW, directly or indirectly, any pollutant, substance or wastewater which will cause "pass through" or "interference" as those terms are defined by the Sewer Use Ordinance.
- D. The Permittee shall not contribute or cause to be contributed to the POTW, directly or indirectly, any of the substances, pollutants, or wastewater prohibited by Section 6.3(c) through 6.3(y) of the Sewer Use Ordinance.
- E. The dilution of any of Permittee's effluent or discharge as a partial or complete substitute for adequate treatment to achieve compliance with applicable local, state or federal standards or limitations is prohibited as provided by Section 6.7 of the Sewer Use Ordinance.
- F. Permittee's discharges shall at all times comply with all other applicable local, state and federal laws, regulations, standards, and requirements, including, without limitation, the Sewer Use Ordinance, and including any such laws, regulations, standards, or requirements that may become effective during the term of this permit.

## **PART 2. MONITORING AND SAMPLING REQUIREMENTS.**

The Permittee shall comply with all monitoring requirements as provided by this permit, the Sewer Use Ordinance and other applicable laws and regulations, including, without limitation, the following:

- A. Monitoring Location, Frequency and Sample Type. During the period beginning on April 15, 2001, and ending on April 15, 2006, the Permittee shall monitor Outfalls 001 and 001-A for the following sample parameters, according to the following monitoring locations, frequencies, and sample types:

<u>Parameter</u>	<u>Location</u> <sup>1</sup>	<u>Frequency</u> <sup>2</sup>	<u>Type</u> <sup>3</sup>
Arsenic	Outfall 001/001-A	Semi-Annually	Composite
Cadmium	Outfall 001/001-A	Semi-Annually	Composite
Chromium (T)	Outfall 001/001-A	Semi-Annually	Composite
Chromium, Hexavalent	Outfall 001/001-A	Semi-Annually	Composite
Copper	Outfall 001/001-A	Semi-Annually	Composite
Cyanides (T)	Outfall 001/001-A	Semi-Annually	Grab <sup>4</sup>
Lead	Outfall 001/001-A	Semi-Annually	Composite
Molybdenum	Outfall 001/001-A	Semi-Annually	Composite

Nickel	Outfall 001/001-A	Semi-Annually	Composite
Phenol (T)	Outfall 001/001-A	Semi-Annually	Grab
Selenium	Outfall 001/001-A	Semi-Annually	Composite
Silver	Outfall 001/001-A	Quarterly	Composite
Zinc	Outfall 001/001-A	Semi-Annually	Composite
Mercury	Outfall 001/001-A	Semi-Annually	Composite
PCBs (T)	Outfall 001/001-A	Semi-Annually	Composite
Ammonia Nitrogen (NH <sub>3</sub> as N)	Outfall 001/001-A	Semi-Annually	Composite
BOD-5	Outfall 001/001-A	Semi-Annually	Composite
Phosphorous (T)	Outfall 001/001-A	<del>Weekly</del> <i>Semi Annually / BOD</i>	Composite
pH	Outfall 001/001-A	<del>Daily</del> <i>Semi Annually / BOD</i>	Grab

Notes:

- 1 The sample monitoring and measurement location shall be at the wet well (collection area) of the discharge pipe to the City or as otherwise specified by the POTW.
- 2 "Daily" means at least once within every 24 hour period; "weekly" means at least once within every 7 day period; "quarterly" means at least once within every 3 month period (once during March, June, September, and December, unless otherwise noted); "semi-annually" means at least twice per year (once during June and December, unless otherwise noted); and "continuous" means at all times during discharge.
- 3 "Grab" sample means an individual sample that is taken from a wastestream on a one-time basis without regard to the flow in the wastestream and over a period of time not to exceed 15 minutes. "Composite" sample means a series of individual samples taken at regular intervals over a specific time period and combined into a single sample (formed either by continuous sampling or by mixing discrete samples) representative of the average stream during the sampling period. For categorical sampling, a composite sample shall consist of at least four (4) individual samples taken within a 24 hour period. Except as provided below, a composite sample shall be a 24-hour flow proportioned composite sample. If it is not feasible to obtain a flow proportioned composite sample, and if the Permittee demonstrates to the POTW's satisfaction that a representative sample will be obtained, the POTW may approve the use of a 24-hour time proportioned composite sample (or a minimum of 4 grab samples, as determined appropriate by the POTW) in lieu of the flow proportioned composite sample.
- 4 Monitoring for cyanide must be conducted after cyanide treatment and before dilution with other streams.

The Permittee may be required by the POTW to perform additional monitoring of the parameters listed in this section (including, without limitation, different locations, frequencies or sample types) as determined necessary by the POTW or as otherwise authorized under applicable laws and regulations.

- B. Monitoring - Special Requirements. In addition to any other applicable monitoring requirements, the Permittee shall also comply with any special monitoring requirements as specified by this section.

*[None Applicable.]*

- C. Automatic Resampling Upon Indication of Permit Violation; Notification and Report Required. If sampling performed by the Permittee indicates a violation, the Permittee shall notify the WWTP Superintendent within 24 hours of becoming aware of the violation. The Permittee shall also repeat the sampling and analysis and submit the results of the repeat analysis to the POTW within 30 days after becoming aware of the violation, except that the Permittee shall not be required to resample if (a) the POTW performs sampling at the Permittee's facility at a frequency of at least once per month, or (b) the POTW performs sampling at the Permittee's facility between the time when the Permittee performs its initial sampling and the time when the Permittee receives the results of the sampling that indicates the violation. If the Permittee uses its own laboratory for sample analysis, the WWTP Superintendent may require the Permittee to send split samples to an independent laboratory at a frequency specified by the Superintendent as a quality control check.
- D. Monitoring Points. All samples and measurements shall be taken at the monitoring points specified in this permit and, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water or substance. The Permittee shall not change monitoring points without the prior approval of the POTW.
- E. Sampling and Analytical Methods to Demonstrate Compliance. All sampling, measurements, tests, and analyses of the characteristics of discharges to the POTW shall be performed in accordance with the procedures approved by the U.S. EPA contained in 40 CFR part 136. If, as determined by the WWTP Superintendent, the sampling and analytical techniques contained in 40 CFR part 136 are not available, do not apply to the discharge or pollutants in question, are not appropriate under the circumstances for application to the discharge or pollutants in question, or where one or more alternate techniques are available under 40 CFR part 136, sampling and analysis shall be performed using validated sampling and analytical methods and procedures approved or required by the POTW.
- F. Representative Sampling. All samples and measurements taken as required by this permit shall be representative of the volume and nature of the monitored discharge. This shall be subject to verification by the POTW through the use of split sampling or other means determined necessary by the POTW.
- G. Flow Measurement. If the Permittee is required by this permit to measure flow, the Permittee shall use flow measurement devices and methods consistent with approved scientific practices to ensure the accuracy and reliability of measurements of the volume of monitored discharges. Measurement devices used by the Permittee shall be capable of



measuring flows with a maximum deviation of less than 10 percent from true discharge rates throughout the range of expected discharge volumes.

- H. Maintenance, Repair and Calibration of Sampling Equipment. All equipment used for sampling, measurement and analysis as required by this permit must be routinely calibrated, inspected, and maintained by the Permittee as provided by the Sewer Use Ordinance. Calibration, inspection and maintenance shall be performed as often as necessary to ensure that monitoring data, measurements and analysis are accurate and representative, and consistent with the accepted capability of the type of equipment used. The Permittee shall keep a complete and accurate written record of all calibrations, inspections and maintenance done (including, without limitation, the date and time of the activity, a description of what was done and the methods used, the names of persons conducting the activity, and any required or recommended follow-up). The record shall also include a description of all problems discovered regarding the equipment whether in response to a regularly scheduled inspection or otherwise. The POTW, in any event, may inspect and test a user's sampling and flow measurement equipment and instruments at all reasonable times.
- I. Records of Sampling and Analysis. The Permittee shall keep a written record of all samples, measurements, and analysis required by this permit and the Sewer Use Ordinance. At a minimum, the records shall include the date, exact place, time (including start time and stop time) and method of sampling or measurement, and the name(s) of person(s) taking the samples or measurements; sampler programming information; the sample preservation techniques or procedures used; the full chain-of-custody for each sample; the dates the analyses were performed; who performed the analyses; the analytical techniques and methods used; quality assurance/quality control (QA/QC) procedures used and QA/QC data; and the results of the analyses. Records shall be maintained and retained as provided by Section 7.7 of the Sewer Use Ordinance.

### **PART 3. SPECIAL CONDITIONS.**

The Permittee (and any transferees, assigns and successors in interest) shall comply with any special conditions specified by this section.

- A. The facility is basically shut down, but many risks to the POTW remain. For example, there are tanks and totes on the property with residual chemicals which, if spilled or dumped, would have serious negative impacts on the POTW. Further, the drains in the facility are connected to the POTW and there are tanks and totes either without, or without sufficient, spill containment devices. The Permittee shall immediately undertake whatever actions are necessary, including, but not limited to, installation of containment devices or sealing of floor drains, subject to review and approval of the POTW, as necessary to remove all significant risks to the POTW from spillage or dumping, and so as to fully comply with all applicable requirements of Part 5 of this Permit, Section 7.8 of the Sewer Use Ordinance, and to comply with any other requirements imposed by the

POTW in this regard to adequately safeguard the POTW at all times. This condition applies at all times now and in the future, regardless of whether the facility is being used by any person, whether discharges continue from the facility, or whether the facility has been abandoned.

**PART 4. REPORTING AND NOTIFICATION REQUIREMENTS.**

- A. Required Reports and Notifications. The Permittee shall comply with all reporting and notice requirements as provided by this permit, the Sewer Use Ordinance, and other applicable laws and regulations, including, without limitation, the following:
1. Baseline Reports. As applicable to the Permittee, the Permittee shall submit to the POTW within the required submission deadlines the reports as required by Section 7.3(a)(1) of the Sewer Use Ordinance.
  2. Reports on Compliance with Categorical Pretreatment Standard Deadline. As applicable to the Permittee, the Permittee shall submit to the POTW within the required submission deadlines the reports as required by Section 7.3(a)(2) of the Sewer Use Ordinance.
  3. Periodic Reports on Continued Compliance. All monitoring results obtained by the Permittee as required by this permit shall be summarized and reported on an Industrial User Monitoring Report Form once every 6 months (unless required more frequently by the applicable pretreatment standard or by the POTW) as otherwise required by Section 7.3(a)(3) of the Sewer Use Ordinance. The reports are due on the 30th day of June and December of each year (unless alternate months are specified by the POTW). The first report is due on June 30, 1999. Each report shall indicate, without limitation, the following information for the applicable reporting period: the nature and concentration of all pollutants in the effluent for which sampling and analysis were performed; the measured maximum and average daily flows; the names of all person(s) responsible for operating and maintaining any pretreatment equipment, pretreatment processes, or responsible for wastewater management at the Permittee's facilities, with a brief description of each person's duties; information regarding materials or substances which may cause interference or pass through; and any other information required by the Sewer Use Ordinance or deemed necessary by the POTW to assess and assure compliance with applicable discharge requirements or to safeguard the operation of the POTW.
  4. Notice of Potential Problems. The Permittee shall immediately notify the POTW of any discharge by the Permittee that could cause problems to the POTW, including, without limitation, slug loadings, or discharges that exceed any applicable discharge prohibition or limitation, or otherwise result in noncompliance with permit requirements.

5. Notice by User of Violation of Pretreatment Standards. If sampling performed by an industrial user indicates a violation, the user shall notify the POTW within 24 hours of becoming aware of the violation (and shall comply with other applicable requirements provided by Section 7.2(f) of the Sewer Use Ordinance regarding repeat sampling and analysis).
6. Notice of Changed Discharge or Change in User Status. The Permittee shall promptly notify the POTW in advance of any substantial change in the volume or character of pollutants in its discharge, or of any facility expansion, production increase, or process modifications that could result in a substantial change in the volume or character of pollutants in its discharge, as provided by Section 7.3(e) of the Sewer Use Ordinance.
7. Notice Regarding Discharge of Wastes That Are Otherwise Hazardous. If the Permittee discharges to the POTW a substance that, if disposed of other than by discharge to the POTW, would be a hazardous waste under 40 CFR part 261 or under the rules promulgated under the state hazardous waste management act (Part 111 of Act 451 of the Public Acts of Michigan of 1994, MCLA §§ 324.11101 et seq., as amended), the Permittee shall notify the WWTP Superintendent, the U.S. EPA Region V Waste Management Division Director, and the Chief of the Waste Management Division of the Michigan Department of Environmental Quality, of the discharge as required by MAC R 323.2310(15).
8. Notice Regarding Installation of New Pretreatment Facilities. Within 5 days after completing installation of new pretreatment facilities, the Permittee shall notify the POTW in writing of the time and date when it intends to commence operation of the new facilities, and the identity of the person who will conduct any tests to be performed. The pretreatment facilities shall not be placed in regular operation until adequate tests have been conducted to establish that the discharges will comply with the requirements of this permit and other applicable laws and regulations. Upon prior written request by the POTW, the Permittee shall allow a representative of the POTW to observe the tests at the time they are conducted. The cost of the tests shall be paid by the Permittee.
9. Other applicable reporting and notification requirements. The Permittee shall comply with other applicable reporting and notice requirements as provided by this permit, the Sewer Use Ordinance, or any other applicable laws or regulations, including, without limitation, the reporting and notice requirements in connection with accidental discharges (Section 7.8 of the Sewer Use Ordinance), upset (Section 7.9 of the Sewer Use Ordinance), and bypass (Section 7.10 of the Sewer Use Ordinance), and any other reports or notice requirements determined necessary by the POTW to assess and assure compliance with the requirements of the Sewer Use Ordinance.

- B. Requirements Applicable to All Reports and Notifications. All reports and notifications submitted by the Permittee to the POTW as required by this permit shall meet the following requirements:
1. All reports required by this permit shall be based upon data obtained through appropriate sampling and analysis performed during the period covered by the report. The data shall be representative of conditions occurring during the applicable reporting period.
  2. If the Permittee monitors any pollutant or sampling parameter more frequently than required by this permit, using test procedures prescribed in 40 CFR Part 136, as amended, (or otherwise approved by EPA or as specified in this permit), the results of such additional monitoring shall be included in any calculations of actual daily maximum, monthly average, or instantaneous pollutant discharge, and these results, along with the increased monitoring frequency, shall be included in all reports and notifications submitted to the POTW pursuant to this permit.
  3. The POTW may require that reports, notifications, and other required documents and data be submitted in a standardized format, as specified by the POTW.
  4. If the POTW instead of the Permittee collects all of the information, including flow data, required for a report required by Sections 7.3(a) or 7.3(b) of the Sewer Use Ordinance, the POTW may in its discretion waive the requirement that the report be submitted by the Permittee.
  5. The reports, notifications, and other documents and data required to be submitted or maintained by this permit and the Sewer Use Ordinance shall be subject to all of the provisions as specified by MAC R 323.2310(13).
  6. Failure to provide the notifications and reports required by this permit constitutes a violation of this permit and the Sewer Use Ordinance. Providing the required notifications and reports shall not relieve the Permittee of any expense, loss, damage, or other liability which may be incurred as a result of damage to the POTW, fish kills, or any other damage to person or property; nor shall such notification or report relieve the Permittee of any fines, penalties, or other liability which may be imposed by applicable laws or regulations. Further, the reporting and notification requirements required by this permit shall not be construed to authorize a discharge which exceeds a discharge prohibition or limitation under this permit or other applicable laws or regulations.
  7. All written reports and notifications required by this permit shall be signed and certified as follows:

- a. Required Signatures. The reports and notifications shall be signed by an "authorized representative" of the User as defined in Section 2.1 of the Sewer Use Ordinance.
  - b. Required Certification. The reports and notifications shall include the following certification statement:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."
8. All written reports and notifications required by this permit shall be submitted to the POTW at the following address:
- Plainwell Wastewater Treatment Plant  
Attn: Bryan Pond, WWTP Superintendent  
141 N. Main Street  
Plainwell, Michigan 49080
9. All non-written or oral notifications required by this permit shall be made by contacting the POTW at the following telephone numbers:
- a. Monday through Friday, 7:00 AM to 3:30 PM: 616-685-5153 or 616-685-1982.
  - b. All other times (including after hours, weekends and holidays): 616-685-9858.

## **PART 5. ACCIDENTAL DISCHARGE.**

- A. Accidental Discharge Requirements. The Permittee shall meet and maintain compliance at all times with the minimum requirements for preparing for, responding to, and reporting, accidental discharges to the POTW as provided by Section 7.8 of the Sewer Use Ordinance, and any additional or more restrictive requirements provided by this permit, a slug control plan, or other applicable laws and regulations.
- B. Accidental Discharge Notice and Report.

1. Upon the occurrence of any accidental discharge of any substance, pollutant or wastewater prohibited by this permit, or the occurrence of any slug load or spill that may enter the POTW, the Permittee shall *immediately* (regardless of the time of day) notify the POTW of the incident by telephone at the telephone numbers provided in Part 4, Section (B)(8) of this permit. The notification shall include all available information regarding the date, time and location of the discharge, its volume, duration, constituents, loading and concentrations, corrective actions taken and required, and other available information as necessary to determine what impact the discharge may have on the POTW.
2. Within 5 days of an accidental discharge, the Permittee shall submit to the POTW a detailed written report. The report shall specify the same and any additional available information regarding the accidental discharge, slug load or spill as required by Section (B)(1), above. The report shall also specify the cause of the incident; the exact dates and times of noncompliance and, if the noncompliance is continuing, the time by which compliance is reasonably expected to occur; the impact on the Permittee's compliance status; the measures that have been or will be taken by the Permittee to prevent similar future incidents from occurring.

#### **PART 6. UPSET.**

- A. **Affirmative Defense.** An upset constitutes an affirmative defense to an action brought for noncompliance with categorical pretreatment standards if *all* of the requirements of Section (B), below, are met by the Permittee. In any enforcement proceeding, the Permittee shall have the burden of proof by clear and convincing evidence to establish the occurrence of an upset and that the noncompliance in question was attributable to the upset event. Even if the Permittee establishes the upset defense for a particular noncompliance event, the Permittee shall nevertheless be liable for surcharges for exceeding applicable discharge limitations as a result of the upset as provided by this permit and the Sewer Use Ordinance.
- B. **Conditions Necessary to Demonstrate Upset.** To establish the upset affirmative defense, the Permittee must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence, all of the following:
  1. An upset occurred and the Permittee can identify the cause(s) of the upset;
  2. The facility was at the time being operated in a prudent and workmanlike manner and in compliance with all applicable operation and maintenance procedures;
  3. The Permittee submitted the following information to the POTW within 24 hours of becoming aware of the upset (if this information is provided orally, a written report must be provided by the Permittee within 5 days of becoming aware of the upset):

- a. A description of the discharge and cause of non-compliance;
  - b. The period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the non-compliance is expected to continue; and
  - c. The steps being taken and/or planned to reduce, eliminate, and prevent recurrence of the noncompliance.
- C. Permittee Responsibility in Case of Upset. If an upset occurs, the Permittee must halt, reduce or otherwise control its production and all discharges, as necessary to comply with categorical pretreatment standards and other applicable limits, until the cause of the noncompliance is corrected. (See also, Part 10, Section (D), "Duty to Halt or Reduce Activity.")

**PART 7. BYPASS.**

- A. Bypass Prohibited. Except as provided by Section (D) of this Part, the bypass of industrial wastes from any portion of the Permittee's facility is prohibited unless:
1. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
  2. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated waste, or maintenance during normal periods of equipment downtime; and
  3. The Permittee provided notice as required under Section (B) of this Part.
- B. Required Notices.
1. Anticipated bypass. If the Permittee knows in advance of the need for a bypass, it must submit prior notice of the bypass to the POTW. Such notice shall be submitted to the POTW as soon as the Permittee becomes aware of the need for the bypass, and if possible, at least 10 days before the date of the bypass.
  2. Unanticipated bypass. Within 24 hours from the time the Permittee becomes aware of an unanticipated bypass that exceeds applicable pretreatment standards, the Permittee must submit oral notice of the bypass to the POTW. A written report must also be provided to the POTW within 5 days of the time the Permittee becomes aware of the bypass. The written report shall contain a description of the bypass and its cause; the duration of the bypass, including exact dates and times, and, if the bypass has not been corrected, the anticipated time it is expected to

continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the bypass. The WWTP Superintendent may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

- C. POTW Approved Bypass. The WWTP Superintendent may approve an anticipated bypass, after considering its adverse effects, if the Superintendent determines that it meets the conditions set forth in Section (A)(1), (2) and (3), above. It shall be a violation of this permit and the Sewer Use Ordinance for the Permittee to allow an anticipated bypass to occur without the prior approval of the Superintendent.
- D. Bypasses Not Violating Applicable Pretreatment Standards or Requirements. The Permittee may allow a bypass to occur that does not cause or result in noncompliance with this permit, the Sewer Use Ordinance, or applicable state or federal laws or regulations, but only if the bypass is for essential maintenance to assure efficient operation of the Permittee's facility. Such bypasses are not subject to the provisions of Sections (A), (B) and (C) of this Part. However, this section shall not be construed to authorize a discharge which exceeds a discharge prohibition or limitation under this permit or other applicable laws or regulations; nor to relieve the Permittee for any expense, loss, damage, or liability which may be incurred as a result of the bypass, such as damage to the POTW, fish kills, or any other damage to person or property; nor to relieve the Permittee of any fines, penalties or other liability which may be imposed by applicable laws or regulations as a result of the bypass.

**PART 8. MODIFICATION, SUSPENSION, REVOCATION, REISSUANCE, EXPIRATION, CONTINUATION AND/OR TRANSFER.**

- A. Permit Modification. This permit may be modified by the POTW for any reason determined necessary by the POTW to assure compliance with the requirements of the Sewer Use Ordinance and other applicable laws and regulations, including, without limitation, any of the following reasons:
1. To incorporate any new or revised local, state or federal pretreatment standards or requirements, or other applicable requirements of law or regulation.
  2. Material or substantial changes or additions to the Permittee's operations, processes, or the character or quality of discharge which were not considered in drafting or issuing the existing permit.
  3. A change in any condition in either the Permittee's discharge, facility, production or operations, or in the POTW, that requires either a temporary or permanent reduction or elimination of the Permittee's discharge to assure compliance with applicable laws, regulations or the POTW's NPDES permit.



4. Information indicating that the discharge as authorized by the existing permit poses a threat to the POTW's collection or treatment systems, POTW personnel or the receiving waters.
5. Violation of any terms or conditions of the permit.
6. Misrepresentation or failure to disclose fully all relevant facts in the permit application or in any required report or notification.
7. Revision of, or a grant of variance from, categorical standards pursuant to 40 CFR 403.13.
8. To correct typographical or other errors in the permit.
9. To reflect transfer of the facility ownership or operation to a new owner or operator.
10. To add or revise a compliance schedule for the Permittee.
11. To reflect changes or revisions in the POTW's NPDES permit.
12. To ensure POTW compliance with applicable sludge management requirements promulgated by EPA.
13. To incorporate any new or revised requirements resulting from reevaluation of the POTW's local limits.
14. To incorporate a request for modification by the Permittee, as determined appropriate by the POTW and provided the request does not create a violation of any applicable requirement, standard, law, rule or regulation.

The Permittee shall be informed by the POTW of any changes in the permit at least 30 days prior to the effective date of the change, unless a shorter time is determined necessary by the POTW to meet applicable laws or to protect human health or the environment.

B. Permit Suspension and Revocation. This permit may be suspended (for a specified period) or permanently revoked by the POTW for any reason determined necessary by the POTW to assure compliance with the requirements of the Sewer Use Ordinance, the POTW's NPDES permit, or other applicable laws and regulations, including, without limitation, any of the following reasons:

1. Falsifying self-monitoring reports.
2. Tampering with monitoring equipment.

3. Failure to allow reasonable access to the Permittee's premises and records by representatives of the POTW for purposes authorized by this chapter, including, without limitation, inspection or monitoring.
4. Failure to conduct any required self-monitoring or sampling.
5. Failure to meet effluent limitations.
6. Failure to pay fines or penalties.
7. Failure to pay sewer charges.
8. Failure to pay permit fees.
9. Failure to meet compliance schedules.
10. Failure to comply with any term or condition of the permit, the Sewer Use Ordinance, or any final judicial order entered with respect thereto.
11. Failure to comply with any reporting or notice requirement.
12. Failure to disclose fully all relevant facts in the permit application or during the permit issuance process, or misrepresentation of any relevant fact at any time.
13. A determination by the POTW that the discharge permitted by the permit has a reasonable potential to endanger human health or the environment and the threat can be abated only by suspension or revocation of the permit.

Upon suspension or revocation of a permit, the Permittee shall immediately terminate its discharge to the POTW and shall not thereafter recommence discharge without further authorization from the POTW as provided by the Sewer Use Ordinance.

- C. Permit Reissuance. To apply for reissuance of this permit, the Permittee must submit a complete permit application accompanied by payment of an application fee to the POTW at least 180 days prior to the expiration date of the this permit. It shall be the responsibility of the Permittee to make a timely application for reissuance.

D. Permit Expiration; Continuation of Expired Permits.

1. This permit shall expire on the date indicated on page 1 of this permit. Except as provided by Section (D)(2) of this Part, upon expiration of this permit the Permittee shall immediately terminate its discharge to the POTW and shall not

thereafter recommence discharge without further authorization from the POTW as provided by the Sewer Use Ordinance.

2. This permit shall continue to be effective (and the Permittee may continue its discharge to the POTW) after the date of expiration until it is reissued only if:
  - a. The Permittee has submitted a complete permit application at least 180 days prior to the expiration date of the Permittee's existing permit; and
  - b. The failure to reissue the permit, prior to expiration of the previous permit, is not due to any act or failure to act on the part of the Permittee.

E. Limitations on Permit Transfer. This permit was issued to the Permittee for discharge from a specific facility and operation and shall not be assigned or transferred or sold to a new or different owner, operator, user, discharger, facility or premises, or to a new or changed facility or operation, without the prior written approval of the WWTP Superintendent. If the transfer of the permit is approved, any succeeding transferee Permittee must also comply with the terms and conditions of this permit. The Superintendent may approve the transfer of this permit only if all of the following conditions are met:

1. The transferor (Permittee) shall give at least 90 days advance notice to the POTW of the proposed transfer of the permit (unless a shorter notice period is approved by the Superintendent in advance). The notice shall include a written certification signed by the proposed transferee which (a) states that the transferee has no present intent to change the facility's operations and processes; (b) identifies the specific date on which the transfer is to occur; (c) acknowledges that the transferee has read and fully understands all terms and conditions of the permit; and (d) acknowledges that the transferee accepts all of the terms and conditions of the permit as written and accepts full responsibility for complying with the existing permit if the transfer is approved.
2. The transferor has not violated any term or condition of the permit or of this ordinance during the 6 month period preceding the proposed date of the transfer.
3. As of the date of the proposed transfer, there are no unpaid charges, fines, penalties or fees of any kind due to the POTW or the City from the transferor or the transferee related to use of the POTW.
4. Except as to the identity of the new Permittee (the transferee), the application materials for the permit to be transferred as originally filed by the transferor, as well as the terms and conditions of the permit itself, are completely accurate with respect to, and fully applicable to, the discharge, facilities, and activities of the transferee.

If the transfer of this permit is approved, the POTW shall make the necessary minor modifications to the permit to show the transferee as the new Permittee, and a copy of the permit shall be provided to the transferee for signature and certification by the transferee as provided by Section 7.3(j) of the Sewer Use Ordinance. The Permittee shall remain liable for any discharges to the POTW from the facility (along with any other persons actually discharging from the facility to the POTW) until a transfer of the permit has been approved in full compliance with the requirements of this section.

- F. Permit Not Stayed. Except as otherwise expressly provided by the Sewer Use Ordinance, no action taken or request filed by the Permittee shall operate to stay the effect of this permit or of any provision, term or condition of this permit, including, without limitation, a request for permit modification, reissuance, or transfer, or a notification of planned changes or anticipated noncompliance.

## **PART 9. RECORDS RETENTION.**

The Permittee shall retain and preserve records and information related to matters regulated by this permit in accordance with the Section 7.7 of the Sewer Use Ordinance.

## **PART 10. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS.**

- A. Provision of Necessary Pretreatment Facilities. The Permittee shall provide all necessary wastewater treatment as required to comply with all applicable pretreatment standards and requirements within the time limitations specified by this permit or other applicable law or regulation. All facilities required to pretreat wastewater shall be provided, operated, and maintained at the Permittee's expense. Detailed plans showing the pretreatment facilities and operating procedures shall be submitted to the POTW for review, and shall be acceptable to the POTW before construction of the facility. The review of such plans and operating procedures does not in any way relieve the Permittee from the responsibility of modifying the facility as necessary to produce an effluent acceptable to the POTW under the provisions of this permit. Any subsequent changes in the pretreatment facilities or method of operation shall be reported to and be approved by the POTW prior to the Permittee's initiation of the changes. (The Permittee shall notify the POTW regarding the installation of new pretreatment facilities as provided by Section 7.3(g) of the Sewer Use Ordinance.)
- B. Proper Operation and Maintenance. The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to comply with the requirements of this permit. Proper operation and maintenance includes, without limitation, effective performance, adequate funding, adequate operator staffing, and adequate quality assurance/quality control (QA/QC) procedures for sampling and analysis.

- C. Removed Substances. Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in accordance with Section 405 of the Clean Water Act and Subtitles C and D of the Resource Conservation and Recovery Act.
- D. Duty to Halt or Reduce Activity. Upon reduction of efficiency of operation, or loss, or failure of all or part of the Permittee's pretreatment equipment or facility, the Permittee shall, to the extent necessary to maintain compliance with categorical pretreatment standards and other applicable standards, requirements, and limits, control its production and all discharges until operation of the equipment or facility is restored or an alternative method of treatment is provided. This requirement applies in situations, including, without limitation, where the primary source of power for the pretreatment equipment or facility is reduced, lost, or fails. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- E. Duty to Mitigate. The Permittee shall take all reasonable steps to minimize or correct any adverse impact to the POTW or the environment resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.
- F. Duty to Pretreat Prior to Discharge to POTW. Except as otherwise expressly required by this permit, by the Sewer Use Ordinance, or other applicable law or regulation, the prohibitions and limitations provided by this permit shall apply at the point where wastewater and pollutants are discharged or caused to be discharged into the POTW and any required pretreatment shall, at a minimum, be completed before that point of discharge is reached.

## **PART 11. INSPECTION, SURVEILLANCE AND MONITORING.**

- A. In General. The POTW is authorized to carry out all inspection, surveillance, sampling and monitoring activities and procedures, as necessary to determine, independent of information supplied by the Permittee or any other persons, compliance or noncompliance with applicable pretreatment standards and requirements, with this permit, the Sewer Use Ordinance, and other applicable laws and regulations. This authority includes, without limitation, the authority:
1. To verify the completeness, accuracy and representativeness of self-monitoring data submitted by or on behalf of the Permittee.
  2. To determine compliance with the requirements of this permit or the Sewer Use Ordinance.

3. To support enforcement actions taken by the POTW against non-compliant Permittees.
4. To determine if the Permittee has corrected problems identified in previous inspections.
5. To identify whether or to what degree the Permittee influences the quality of the POTW's influent, effluent and sludge quality.
6. To evaluate the impacts of the POTW's influent on its treatment processes and receiving stream.
7. To evaluate the need for revised local limits.
8. To maintain current data on the Permittee.
9. To assess the adequacy of the Permittee's self-monitoring program and wastewater discharge permit.
10. To provide a basis for establishing sampling and monitoring requirements for the Permittee.
11. To evaluate the adequacy of the Permittee's operation and maintenance activities on its pretreatment system.
12. To assess the potential for spills and/or slug discharge control measures, and evaluate the effectiveness of spill and slug discharge control measures.
13. To gather information for industrial user permit development.
14. To evaluate compliance with existing enforcement actions.
15. To require the Permittee to submit one or more representative samples of the wastewater discharged or that the Permittee proposes to discharge into the POTW.

B. Right of Entry. The WWTP Superintendent and other authorized representatives of the City bearing proper credentials and identification are authorized to enter the Permittee's premises to conduct inspection, surveillance and monitoring activities as necessary to determine compliance with this permit and the Sewer Use Ordinance, and in that regard shall have, without limitation, the following minimum authority:

1. To enter into any premises of the Permittee in which a discharge source, treatment system or activity is located or in which records are required to be kept as provided by this permit or the Sewer Use Ordinance, for the purpose of inspecting, observing, measuring, sampling and testing the wastewater discharge,

removing samples of wastewater for analysis, and inspecting and making copies of required records.

2. To set up and maintain on the Permittee's property such devices as are necessary to conduct sampling, inspection, compliance monitoring and/or metering operations, or to require the Permittee to do so, at the Permittee's sole expense.
  3. To randomly sample and analyze the effluent from the Permittee and conduct surveillance activities to identify occasional and continuing noncompliance with applicable standards and requirements.
  4. To inspect any production, manufacturing, fabrication, or storage area where pollutants, subject to regulation under this permit or the Sewer Use Ordinance, could originate, be stored, or be discharged to the POTW.
  5. To enter all private properties through which the City or other governmental agency holds an easement for the purposes of, but not limited to, inspection, observation, measurement, sampling, repair, and maintenance of any portion of the POTW or wastewater transmission facilities lying within the easement.
- C. Access Without Delay Required. The Permittee shall allow the POTW ready access at all reasonable times to all parts of the Permittee's facility where wastewater governed by this permit or the Sewer Use Ordinance is created, handled, conveyed, treated or discharged, or where any production, manufacturing, fabrication, or storage area where pollutants regulated by this permit or the Sewer Use Ordinance could originate, be stored, or be discharged to the POTW, or where wastewater records are kept, for the purposes of inspection, sampling, records examination, or in the performance of any of the POTW's duties. If the Permittee has security measures in force that would require proper identification and clearance before entry into the premises by the POTW, the Permittee shall make necessary arrangements in advance with its security guards so that upon presentation of suitable identification, authorized representatives of the POTW (or authorized state or federal personnel) will be permitted to enter, without delay, for the purposes of performing their specific responsibilities.
- D. Refusal to Allow Entry. If the Permittee refuses to permit access to an authorized POTW representative or to permit the representative to obtain, take, and remove samples or make copies of documents or undertake other authorized inspection, surveillance and monitoring activities as provided by this permit or the Sewer Use Ordinance, the WWTP Superintendent may order the termination of the discharge of wastewater to the POTW; order the Permittee to permit access within a time certain; issue the Permittee a notice of violation of this section; or take other appropriate action as provided by this permit or the Sewer Use Ordinance and other applicable laws and regulations.
- E. Duty to Provide Information. The Permittee shall furnish to the POTW any available information which the POTW requests to determine whether cause exists for modifying,

revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The Permittee shall also, upon request, furnish to the POTW copies of any records required to be kept by this permit. The information and records requested by the POTW shall be provided by the Permittee to the POTW within 24 hours of the request, unless an alternative time frame is specified by the POTW when making the request or unless the POTW allows additional time for the Permittee to submit the requested information based on a showing by the Permittee of good cause for any delay. The Permittee's failure to submit the requested information to the POTW within 24 hours (or within any alternate time period approved by the POTW as provided by this section) constitutes a violation of this permit.

## **PART 12. VIOLATIONS AND ENFORCEMENT.**

- A. Duty to Comply. The Permittee must comply with all standards, requirements and conditions of this permit, the Sewer Use Ordinance, any notice, order, decision or determination promulgated, issued or made by the POTW under the Sewer Use Ordinance, and state and federal laws and regulations. Failure to comply shall be grounds for enforcement action or proceedings, including, without limitation, those provided by this Part of the permit.
- B. Civil Administrative Fines. If the Permittee has violated, or continues to violate, any provision of this permit or the Sewer Use Ordinance, or any notice, order, decision or determination promulgated, issued or made by the POTW under the Sewer Use Ordinance, the Permittee shall be subject to a civil administrative fine of up to \$500.00 per violation, per day, as provided by the Sewer Use Ordinance. The civil administrative fine may be assessed in addition to any other charge, fee, surcharge, penalty or fine authorized or levied under this permit or the Sewer Ordinance. Civil administrative fines assessed by the POTW which have not been paid in full by the Permittee within 30 days of receipt of the notice of assessment shall be added to the Permittee's next scheduled service bill and shall be paid and collected along with other rates, charges, fines or penalties.
- C. Judicial Relief. The POTW may commence a civil action for appropriate judicial relief (including, without limitation, imposition of a permanent or temporary injunction, recovery of damages, fines, penalties, costs, surcharges, and such other relief as a court may order) for a violation of any provision of this permit or the Sewer Use Ordinance, or any notice, order, decision or determination promulgated, issued or made by the POTW under the Sewer Use Ordinance.
- D. Municipal Civil Infractions. If the Permittee violates any provision of this permit, the Sewer Use Ordinance, or any notice, order, decision or determination promulgated, issued or made by the POTW under the Sewer Use Ordinance, the Permittee shall (except as provided by Part 12, Section E) be responsible for a municipal civil infraction, subject to payment of a civil fine of not less than \$1,000.00 per day for each infraction and not



more than \$10,000.00 per day for each infraction, plus costs and other sanctions, as provided by Section 10.10(a) of the Sewer Use Ordinance. Further, repeat offenses shall be subject to increased fines of not less than \$2,500.00 plus costs and other sanctions for a first repeat offense, and not less than \$5,000.00 plus costs and other sanctions for a second or any subsequent repeat offense as provided by Section 10.10(b) of the Sewer Use Ordinance.

- E. Criminal Penalties; Imprisonment. If the Permittee (1) at the time of a violation knew or should have known that a pollutant or substance was discharged contrary to any provision of this permit or the Sewer Use Ordinance, or contrary to any notice, order, decision or determination promulgated, issued or made by the POTW under the Sewer Use Ordinance; or (2) intentionally makes a false statement, representation, or certification in an application for, or form pertaining to a permit, or in a notice, report, or record required by this permit or the Sewer Use Ordinance, or in any other correspondence or communication, written or oral, with the POTW regarding matters regulated by this permit or the Sewer Use Ordinance; or (3) intentionally falsifies, tampers with, or renders inaccurate any sampling or monitoring device or record required to be maintained by this permit or the Sewer Use Ordinance; or (4) commits any other act that is punishable under state law by imprisonment for more than 90 days; shall, upon conviction, be guilty of a misdemeanor punishable by a fine of \$500.00 per violation, per day, or imprisonment for up to 90 days, or both in the discretion of the court, as provided by Section 10.11 of the Sewer Use Ordinance.
- F. Remedies Cumulative. The imposition of a single penalty, fine, order, damage, or surcharge upon the Permittee for a violation of any provision of this permit or the Sewer Use Ordinance, or any notice, order, decision or determination promulgated, issued or made by the POTW under the Sewer Use Ordinance, shall not preclude the imposition by the POTW or a court of competent jurisdiction of a combination of any or all of those sanctions and remedies, or additional sanctions and remedies, with respect to the same violation, consistent with applicable limitations of state and federal laws or regulations. A criminal citation and prosecution of a criminal action against the Permittee shall not be dependent upon and need not be held in abeyance during any civil, judicial, or City administrative proceeding, conference, or hearing regarding the Permittee.
- G. Separate Violations. Each day (or portion thereof) on which a violation occurs or continues is a separate and distinct violation for which applicable remedies may be imposed.
- H. Number of Violations. The number of violations resulting from noncompliance with applicable discharge prohibitions or effluent limitations shall be determined as follows:
1. Applicable concentration limitations and mass (or loading) limitations shall be treated as separate limitations, and the Permittee may be liable and penalized separately for exceeding any of those limitations for a single pollutant or sampling parameter.

2. Each violation of a daily maximum limit for a single pollutant or sampling parameter shall constitute a single violation for each day on which the violation occurs or continues.
  3. Each violation of an instantaneous maximum limit for a single pollutant or sampling parameter shall constitute a single violation for each such exceedence, and there may be multiple violations for each day on which such a violation occurs or continues.
  4. Each violation of a monthly average limit for a single pollutant or sampling parameter shall constitute a violation for each day of the month during which the violation occurred, regardless of the number of days on which samples were actually taken. (For example, in a month with 31 days, a violation of the monthly average limit for that month constitutes 31 violations for each pollutant parameter for which the monthly average limit was exceeded during the month.)
  5. If a wastewater discharge permit regulates more than one outfall, each outfall shall be considered separately in computing the number of violations as provided by this section.
- I. Reimbursement of POTW. If the Permittee violates any provision of this permit or of the Sewer Use Ordinance, or discharges or causes a discharge that produces a deposit or obstruction or otherwise damages or impairs the POTW, damages public or natural resources, or causes or contributes to a violation of any federal, state or local law governing the POTW, the Permittee shall be liable to and shall fully reimburse the City for all expenses, costs, losses or damages (direct or indirect) payable or incurred by the POTW or the City as a result of any such discharge, violation, exceedence or noncompliance. The costs that must be reimbursed to the City shall include, without limitation, all of the following:
1. All costs incurred by the POTW and the City in responding to the violation or discharge, including, expenses for any cleaning, repair or replacement work, and the costs of sampling, monitoring, and treatment, as a result of the discharge, violation, exceedence or noncompliance.
  2. All costs to the POTW and the City of monitoring, surveillance, and enforcement in connection with investigating, verifying, and prosecuting any discharge, violation, exceedence or noncompliance.
  3. The full amount of any fines, assessments, penalties, and claims, including natural resource damages, levied against the POTW or the City by any governmental agency or third party as a result of a violation of the POTW's NPDES permit (or other applicable law or regulation) that is caused by or contributed to by any discharge, violation, exceedence or noncompliance.

4. The full value of any City staff time (including any required overtime), consultant and engineering fees, and actual attorney fees and defense costs (including the City attorney and any special legal counsel), associated with responding to, investigating, verifying, and prosecuting any discharge, violation, exceedence or noncompliance or otherwise enforcing the requirements of this chapter.

The City is authorized to correct any violation of this chapter or damage or impairment to the POTW caused by a discharge and to bill the person causing the violation or discharge for the amounts to be reimbursed to the City. The costs reimbursable under this section shall be in addition to fees, amounts or other costs and expenses required to be paid by users under other sections of this permit. In determining the amounts to be reimbursed to the City, the POTW may consider factors such as, but not limited to, those listed in Section 10.15(b) of the Sewer Use Ordinance. The failure by the Permittee to pay any amounts required to be reimbursed to the POTW or the City as provided by this section shall constitute an additional violation of this permit.

- J. Public Nuisance. A violation of this permit, the Sewer Use Ordinance, or of any order, notice or agreement issued or entered into under the Sewer Use Ordinance, is deemed to be a public nuisance and shall be subject to abatement on that basis.

### **PART 13. FEES.**

It is a purpose of this permit and of the Sewer Use Ordinance to provide for the recovery from users of the City's wastewater disposal system of all costs incurred by the City for the administration and implementation by the City of the industrial pretreatment program (IPP) established by the Sewer Use Ordinance. Sewer use fees and charges, including, without limitation, permit application fees, IPP fees, and other sewer related charges shall be established, paid and collected as provided by 7.4(n) and other applicable provisions of the Sewer Use Ordinance.

### **PART 14. ADDITIONAL CONDITIONS.**

- A. Definitions. Except as otherwise specifically defined by this permit, all terms used in this permit shall be defined as provided by the Sewer Use Ordinance.
- B. Most Restrictive Standards or Requirements Control. In all cases, the most stringent or restrictive standard or requirement applicable to the Permittee's discharge shall control, whether established by this permit, the Sewer Use Ordinance, any notice, order, permit, decision or determination promulgated, issued or made by the POTW under the Sewer Use Ordinance, state laws or regulations, including the POTW's NPDES permit, or federal laws or regulations. Further, if state or federal laws or regulations provide for standards and requirements not covered by this permit or the Sewer Use Ordinance that

are otherwise applicable to the Permittee's discharge, those standards and requirements shall apply to the Permittee in addition to those required by this permit or the Sewer Use Ordinance, and the most restrictive of those additional standards or requirements shall control and shall be complied with by the Permittee within the time period required by the law or regulation.

- C. Incorporation By Reference. Unless otherwise expressly provided by this permit, specific provisions of the Sewer Use Ordinance referred to in this permit are incorporated by reference in this permit as if set forth fully herein.
- D. Effect of Issuance of Permit. The issuance of this permit does not convey to the Permittee any property or contractual rights or privileges of any kind whatsoever, nor does it authorize any injury to private or public property or any invasion of personal rights, nor any violation of local, state or federal laws or regulations.
- E. Severability. The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

#### **PART 15. CERTIFICATION.**

This permit and the following certification shall be signed by an "authorized representative" of the Permittee (as defined by Section 2.1 of the Sewer Use Ordinance) prior to commencing any discharge under this permit:

*I certify that I have read, understand, and agree to be bound by all of the provisions, standards, requirements and conditions of this permit. Further, I agree to fully comply with all applicable requirements of the Sewer Use Ordinance and other applicable state and federal pretreatment laws and regulations.*

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Authorized Representative

\_\_\_\_\_  
Name (type or print)

\_\_\_\_\_  
Title

**CITY OF PLAINWELL, MICHIGAN**  
**141 North Main Street**  
**Plainwell, Michigan 49080**

*working permit 9/97*

Wastewater Treatment Plant

Donald L. Murdick, Jr., Superintendent

March 18, 1994

Simpson Plainwell Paper  
Khaja Naimuddin  
Superintendent of Environment  
200 Allegan St.  
Plainwell, MI 49080

Dear Khaja:

As a part of your Industrial User Permit renewal process you will be required to submit lab analyses of all of your discharge points to show compliance with the following parameters. This analyses shall be completed within 30 months of your renewal application deadline of June 18, 1997. You will notice that these have been pulled from your permit. The modified permit is enclosed for your reference and will become effective on May 1, 1994.

**DISCHARGE LIMITATIONS**

Effluent Description	Daily Minimum	Daily Maximum	Sample Type
BOD <sub>5</sub>		200 mg/l	24 Hour Composite <sup>3</sup>
COD		450 mg/l	24 Hour Composite <sup>3</sup>
Chlorine Demand		15 mg/l	24 Hour Composite <sup>3</sup>
Total Phosphorus		11 mg/l	24 Hour Composite <sup>3</sup>
Closed Cup Flashpoint	140° F		Grab <sup>2</sup>
Grease, Oils Wax, Fat		50 mg/l	24 Hour Composite <sup>3</sup>
Cadmium		0.50 mg/l	24 Hour Composite <sup>3</sup>
Total Chromium		2.0 mg/l	24 Hour Composite <sup>3</sup>

Effluent Description	Daily Minimum	Daily Maximum	Sample Type
Hexavalent Chromium		0.1 mg/l	24 Hour Composite <sup>3</sup>
Copper		1.0 mg/l	24 Hour Composite <sup>3</sup>
Cyanide		0.1 mg/l	Grab <sup>2</sup>
Iron		75.0 mg/l	24 Hour Composite <sup>3</sup>
Lead		0.4 mg/l	24 Hour Composite <sup>3</sup>
Mercury		0.01 mg/l	24 Hour Composite <sup>3</sup>
Nickel		1.0 mg/l	24 Hour Composite <sup>3</sup>
Tin		3.0 mg/l	24 Hour Composite <sup>3</sup>
Zinc		3.00 mg/l	24 Hour Composite <sup>3</sup>
pH	6.5	9.5	Grab <sup>2</sup>
Suspended Solids		250 mg/l	24 Hour Composite <sup>3</sup>
Temperature	32° F.	150° F.	Grab <sup>2</sup>
Total Phenol		1.0 mg/l	24 Hour Composite <sup>3</sup>

**FOOTNOTES TO TABLE:**

- 1 Monthly flows are to be recorded from the permittees water meter.
- 2 Grab Sample: A sample which is taken from a waste stream on a one time basis with no regard to the flow in the waste stream and without consideration of time.
- 3 24 Hour Composite: A 24-hour flow proportioned composite sample except that 4 grab samples may be taken in lieu of a 24-hour flow proportioned composite sample for pH, cyanide, total phenols, oil and grease, sulfide, and volatile organic compounds.

If you have any questions feel free to contact me at the Wastewater Plant.

Sincerely,



Donald L. Murdick, Jr.  
Superintendent of Wastewater Treatment

**CITY OF PLAINWELL  
WASTEWATER TREATMENT PLANT  
AUTHORIZATION TO DISCHARGE**

In compliance with provisions of 40 CFR 403.8 and City of Plainwell Ordinance No. 274,

Simpson Plainwell Paper  
200 Allegan St.  
Plainwell, Michigan 49080

is authorized to discharge non-industrial wastewater through the outfall(s) identified herein, from the facility located at

200 Allegan St.  
Plainwell, Mi. 49080

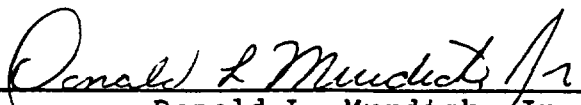
designated as Simpson Plainwell Paper to the POTW referred to as Plainwell Wastewater Treatment Plant in accordance with the effluent limitations, monitoring requirements and other conditions set forth in this permit. Compliance with this permit does not relieve the permittee of its obligation to comply with any or all applicable pretreatment regulations, standards or requirements under local, state and federal laws, including such regulations, standards, requirements or laws that may become effective during the term of this permit.

Noncompliance with any term or conditions of this permit shall constitute a violation of the City of Plainwell Sewer Use Ordinance.

This permit takes effect on September 16, 1992. This permit and authorization to discharge shall expire at midnight on September 16, 1997. In order to receive authorization to discharge beyond the date of expiration of this permit, the permittee shall file with the Superintendent of Wastewater Treatment such information and forms as are required for a renewal permit by Art. 7, Sec. 4 of the City of Plainwell Sewer Use Ordinance No. 274 at least 90 days prior to the date of expiration.

This permit is based on an application submitted on July 13, 1992. On its effective date this permit shall supersede any previous permit or agreement made.

Issued this 16th day of September, 1992, by the City of Plainwell Wastewater Treatment Plant.

  
Donald L. Murdick, Jr.

Superintendent of Wastewater Treatment

## STANDARD CONDITIONS

## PART I

## A: DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS

- 1: During the period beginning on September 16, 1992 and lasting until September 16, 1997, the permittee is authorized to discharge sanitary wastewater only to the City of Plainwell sewer system from the outfalls listed below. All process wastewater shall be treated by Simpson Plainwell Paper at their wastewater treatment facility. Outfall location is described as follows:

Outfall 001: Outfall 001 shall be the 6 inch discharge line located in the basement of the paper machines. This discharge point is for sanitary discharges only and will be used to sample for all local limitations.

Outfall 001-A: Outfall 001-A shall be the sanitary discharge into Cedar St. from the Simpson Plainwell Paper Wastewater Treatment Facility. This discharge point is for sanitary discharges only and will be used to sample for all local limitations.

- 2: All handling and preservation of collected samples and laboratory analyses of samples shall be performed in accordance with the most current edition of "Standard Methods for the Examination of Water and Wastewater", the most current 'American Society for Testing Material' procedures and procedures approved by the U.S. EPA contained in 40 CFR Part 136.
- 3: Permittee shall comply with approved sampling procedures as detailed above.
- 4: Permittee shall contract with an independent company to maintain, repair, and calibrate the sampling and flow measurement equipment and instruments used to monitor the permittee. The maintenance, repair, and calibration shall be performed as often as necessary to ensure that monitoring data is accurate and representative. The City, in any event, may inspect and test a permittee's flow meters at reasonable times.

## PART II

## REPORTING REQUIREMENTS

## A: MONITORING REPORTS

- 1: Monitoring results obtained shall be summarized and reported on an *Industrial User Monitoring Report* form as required. The reports are due on the 10th day of the month following the analyses. The report shall



- b An Industrial User shall submit oral notice of an unanticipated Bypass which exceeds applicable pretreatment standards to the Superintendent within 24 hours from the time the Industrial User becomes aware of the Bypass. A written submission shall also be provided within 5 days of the time the Industrial User becomes aware of the Bypass. The written submission shall contain a description of the Bypass and its cause, the duration of the Bypass including exact dates and times and, if the Bypass has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the Bypass. The Superintendent may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.
- 3. The Superintendent may approve an anticipated Bypass after considering its adverse effects if the Superintendent determines that it meets the conditions set forth above.

#### **D: RESIDUALS MANAGEMENT**

Solids, sludges, filter backwash or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in accordance with Section 405 of the Clean Water Act and Subtitles C and D of the Resource Conservation and Recovery Act.

## **PART IV**

### **OPERATION AND MAINTENANCE**

#### **A: PROPER OPERATION**

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes but is not limited to: effective performance, adequate funding, adequate operator staffing and training, adequate laboratory and process controls including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or systems only when necessary to achieve compliance with the conditions of this permit.

#### **B: DUTY TO HALT OR REDUCE ACTIVITY**

Upon reduction of efficiency of operation, or loss or failure of all or part of the treatment facility, the permittee shall to the extent necessary to maintain compliance with this permit control its production or discharges (or both) until operation of the treatment facility is restored or an alternative method of treatment is provided. This requirement applies, for example, when the primary source of power of the treatment facility fails or is reduced. It shall not be a defence for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

#### **C: BYPASS OF TREATMENT FACILITIES**

- 1: Bypass of industrial wastes from any portion of an Industrial User's facility is prohibited unless:
  - a: Bypass was unavoidable to prevent loss of life, personal injury or severe property damage;
  - b: There were no feasible alternatives to the Bypass, such as the use of auxiliary treatment facilities, retention of untreated waste or maintenance during normal periods of equipment downtime; and
  - c: The Industrial User submitted notices required under this Section.
- 2: In the event a Bypass is made, the permittee will notify the Wastewater Treatment Plant, as follows:
  - a: If an Industrial User knows in advance of the need for a Bypass, it shall submit prior notice to the Superintendent at least 10 days before the date of the Bypass, if possible.

indicate the nature and concentration of all pollutants in the effluent for which sampling and analyses were performed during the calendar month preceding the submission of each report, including the measured maximum and average daily flows.

- 2: If the permittee monitors any pollutant more frequently than required by this permit, using approved methods of analyses, the results of such monitoring shall be included in any calculations of actual daily maximum or monthly average pollutant discharge and results shall be reported in the monthly report submitted to the Plainwell Wastewater Treatment Plant. Such increased monitoring frequency shall also be indicated in the monthly report.

**B: PERMIT VIOLATION/ACCIDENTAL DISCHARGE**

- 1: If the results of the permittee's wastewater analyses indicates that a violation of this permit has occurred, the permittee must:
  - a: Inform the Plainwell Wastewater Treatment Plant of the violation within 24 hours; and
  - b: Repeat the sampling and pollutant analysis and submit in writing the results of this second analysis within 30 days of the first violation.

- 2: The permittee shall notify the City of Plainwell Wastewater Treatment Plant immediately upon the occurrence of an accidental discharge of substances prohibited by Article VI of Ordinance 274 of the City of Plainwell, or any slug loads or spills that may enter the public sewer. Notification should be given as follows:

Monday thru Friday 7:00 AM to 3:30 PM: Notify the Plainwell Wastewater Treatment Plant at (616)685-5153 or (616)685-1982

After hours, weekends or holidays: Notify the Plainwell Wastewater Treatment Plant at (616)685-9858.

The notification shall include location of discharge, date and time thereof, type of waste, including concentration and volume, and the corrective action taken. The permittee's notification of accidental releases does not relieve it of other reporting requirements that arise under local, state or federal laws.

3. Within five days following an accidental discharge, the permittee shall submit to the Plainwell Wastewater Treatment Plant a detailed written report. The report shall specify:
  - a: Description and cause of the upset, slug load or accidental discharge, the cause thereof and impact

- on the permittee's compliance status. The description should also include location of discharge, type, concentration and volume of waste.
- b: Duration of noncompliance including exact dates and times of noncompliance and, if the noncompliance is continuing, the time by which compliance is reasonably expected to occur.
- c: All steps taken or to be taken to reduce, eliminate, and/or prevent reoccurrence of such an upset, slug load, accidental discharge or other conditions of noncompliance.

**C: REQUIRED REPORTS**

1. All reports required by this permit shall be submitted to the Plainwell Wastewater Treatment Plant at the following address:  

Superintendent  
Wastewater Treatment Plant  
City of Plainwell  
141 North Main Street  
Plainwell, Michigan 49080
2. All records and information resulting from the monitoring activities required by this permit, including all records of analyses performed, calibration and maintenance of instrumentation and recordings from continuous monitoring instrumentation, shall be retained for a minimum of three (3) years or longer if requested by the Superintendent of Wastewater Treatment. Wastewater Treatment Plant personnel or their representatives shall be afforded upon request the right of access to the permittee's property to perform sampling and inspection activities and to examine and copy industrial user records.
3. For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:
  - a: The exact place, date, and time of measurement or sampling;
  - b: The person(s) who performed the measurement or sample collection;
  - c: The dates the analyses were performed;
  - d: The person(s) who performed the analyses;
  - e: The analytical techniques or methods used;
  - f: The date of and person responsible for the equipment calibration; and
  - g: The results of all required analyses.
4. All reports required by this permit shall be signed by an authorized signatory designated in accordance with 40 CFR 403.12 (1).
5. Public access to information submitted to or obtained

by the City of Plainwell or the Plainwell Wastewater Treatment Plant shall be in accordance with City of Plainwell Ordinance No. 274, Section 6.

**D: RCRA REPORTING**

Regulation 40 CFR 403.12(p)(1)-(4) states Industrial Users are required to notify the following authorities of discharges of listed and characteristic hazardous wastes, the constituents of these wastes, and anticipated discharges of such wastes over a calendar month and over one year. The regulations do not apply to dischargers of less than 15 kilograms per month of hazardous waste unless the wastes are acute hazardous wastes.

The following authorities are listed in the regulation to receive the one time report:

EPA:  
Director Waste Management  
U.S. E.P.A. Region 5  
230 S. Dearborn Ave.  
Chicago, IL. 60604

Department of Natural Resources:  
Chief of Technical Services Section  
Waste Management Division  
Michigan D.N.R.  
P.O. Box 30028  
Lansing, Mi. 48909

Control Authority:  
Donald Murdick Jr., Superintendent  
City of Plainwell W.W.T.P.  
141 N. Main St.  
Plainwell, Mi. 49080

**PART III**

**GENERAL CONDITIONS**

**A: ADDITIONAL/SPECIAL MONITORING REQUIREMENTS**

No additional or special requirements at this time.

**B: COMPLIANCE SCHEDULES**

No compliance schedule at this time

**C: INDUSTRIAL USER PERMIT FEES**

The City Council shall establish and/or modify by resolution a schedule of standard Industrial User Permit fees and charges to reimburse the City for all expenses incurred by

the City in issuing, administering, monitoring, renewing or transferring permits. These fees shall be separate from and in addition to the Readiness-to-serve Charges and User Charges as provided for in Article VIII of City of Plainwell Ordinance No. 274

The first year's fee is \$580.00 and due upon issuance of permit. The fee for subsequent years shall be invoiced at cost and due annually on October 1<sup>st</sup>.

**D: RIGHT OF APPEAL**

- 1: The permittee may request an informal hearing before the WWTP Superintendent to appeal any action taken by the Superintendent. The request must be made in writing within ten (10) days after the date of the action as provided by Ordinance No. 274, Section 3.
- 2: An appeal from any action of the Superintendent of the Wastewater Treatment Plant may be made to the City Council, acting as the Wastewater Board of Appeals, within 30 days from the date of the action as provided by Ordinance No. 274, Section 3.

**E: PERMIT MODIFICATION**

- 1: The Superintendent of Wastewater Treatment may modify the permit for good cause including, without limitation, any of the following reasons:
  - a: To incorporate any new or revised federal, state or local pretreatment standards or requirements, or other applicable requirement of law or regulation;
  - b: Material or substantial changes or additions to the User's operations, processes, or the character or quality of discharge which were not considered in drafting the existing permit;
  - c: A change in any condition in either the Industrial User or the POTW that requires either a temporary or permanent reduction or elimination of the User's discharge to assure compliance with applicable laws, regulations and the POTW's NPDES permit;
  - d: Information indicating that the permitted discharge poses a threat to the POTW's collection or treatment systems, POTW personnel or the receiving waters;
  - e: Violation of any terms or conditions of the permit;
  - f: Misrepresentation or failure to disclose fully all relevant facts in the permit application or in any required reporting or notice;
  - g: Revision of, or a grant of a variance from, applicable categorical standards pursuant to 40 CFR 403.13;
  - h: To correct typographical or other errors in the permit;
  - i: To reflect transfer of the facility ownership

- and/or operation to a new owner/operator; or
- j: Upon request of the permittee, provided the request does not create a violation of any applicable requirements, standards, laws, rules or regulations.

- 2: The Permittee shall be informed of any changes in the permit at least 30 days prior to the effective date of the change unless a shorter time is determined necessary by the Superintendent to meet applicable laws or to protect human health or the environment.

#### F: CONTINUATION OF EXPIRED PERMITS

An expired permit will continue to be effective and enforceable until the permit is reissued if the permittee has submitted a complete permit application at least ninety (90) days prior to the expiration date of the user's existing permit and the failure to reissue the permit prior to expiration of the previous permit is not due to any act or failure to act on the part of the permittee.

#### G: PERMIT TRANSFER

- 1: Industrial User Permits are not transferable to another permittee nor to another location without the prior written approval of the Superintendent. The Superintendent may approve the transfer of a permit if all of the following conditions are met:
- a: The transferor (permittee) shall give at least 45 days advance notice to the Superintendent of the proposed transfer. The notice shall include a written certification signed by the proposed transferee which:
- (1) States that the transferee has no present intent to change the facility's operations and processes;
  - (2) Identifies the specific date on which the transfer is to occur;
  - (3) Acknowledges that the transferee has read and fully understands all terms and conditions of the permit; and
  - (4) Acknowledges that the transferee accepts all of the terms and conditions of the permit as written and accepts full responsibility for complying with the existing permit if the transfer is approved.
- b: The transferor has not violated any term or condition of the permit or of City Ordinance No. 274 during the six month period preceding the proposed date of the transfer.
- c: As of the date of the proposed transfer, there are no unpaid charges, fines, penalties or fees of any kind due to the City from the transferor or the transferee related to use of the POTW.

- d: Except as to the identity of the new discharger (the transferee), the application materials for the permit to be transferred as originally filed by the transferor as well as the terms and conditions of the permit itself, are completely accurate with respect to, and fully applicable to, the discharge, facilities and activities of the transferee.
- 2: If the transfer of a permit is approved, the Superintendent shall make the necessary minor modifications to the permit to show the transferee as the permittee, and a copy of the permit shall be provided to the transferee for signature and certification by the transferee.

#### H: DUTY TO COMPLY

The permittee must comply with all conditions of this permit. Failure to comply with the requirements of this permit may be grounds for administrative action, or enforcement proceedings including civil or criminal penalties, injunctive relief, and summary abatements.

Compliance with this permit does not relieve the permittee from its obligations regarding compliance with any and all applicable local, state and federal pretreatment regulations, standards requirements or laws including any such regulations, standards, requirements, or laws that may become effective during the term of this permit.

#### I: NOTICE OF CHANGES

Permittee must notify the Superintendent of Wastewater Treatment in writing of any planned changes in the industrial processes, production rates or in the volume or characteristics of wastewater discharged

#### J: SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit, or the application of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

#### K: DUTY TO MITIGATE

The permittee shall take all reasonable steps to minimize or correct any adverse impact to the City of Plainwell Wastewater Treatment Plant or the environment resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.



## **L SPILL CONTROL**

Permittee shall provide and maintain adequate spill containment devices in accordance with Ordinance No. 274, Section 8 (f).

## **M: PERMIT SUSPENSION AND REVOCATION**

- 1: This Permit may be suspended or revoked by the Superintendent of Wastewater Treatment for good cause, including, without limitation, any of the following reasons:
  - a: Falsifying self-monitoring reports.
  - b: Tampering with monitoring equipment.
  - c: Refusing to allow timely access to the facility premises and records.
  - d: Failure to meet effluent limitations.
  - e: Failure to pay fines or penalties.
  - f: Failure to pay sewer charges.
  - g: Failure to pay permit fees.
  - h: Failure to meet compliance schedule.
  - i: Failure to comply with any term or condition of the permit.
  - j: Failure to disclose fully all relevant facts in the permit application or during the permit issuance process, or misrepresentation of any relevant fact at any time.
  - k: The Superintendent determines that the discharge permitted by the permit has a reasonable potential to endanger human health or the environment and the threat can be abated only by suspension or revocation of the permit.
- 2: Upon suspension or revocation of this permit, permittee shall immediately terminate its discharge to the POTW and shall not thereafter recommence discharge without further authorization from the City as provided by Ordinance No. 274.

## **N: DILUTION**

The permittee shall not increase the use of potable or process water or in any way attempt to dilute an effluent as a partial or complete substitute for adequate treatment to achieve compliance with the limitations contained in this permit.

## **O: PROPERTY RIGHTS**

The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any violation of federal, state or local laws or regulations.

From: Khafé Nacmaddin

**LABORATORY REPORT**

Client: *Plainwell Paper Company*

KAR Project No. : **972582**

Date Reported : **08/04/97**

Project Description : *Sampling & analysis of one wastewater discharge.*

Sample ID : <b><u>"Mill Plant, 24 Hr. Composite, 7/24-25/97, 10:50am-11:05am"</u></b>						
Sampled By : <i>SNH of KAR Laboratories</i>				Date Received : <b>7/25/97</b>		
Sample Date :				Sample Type : <b>aqueous</b>		
Sample Time :				KAR Sample No. : <b>972582-01</b>		
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
BOD	184		SM(19) 5210 B	7/25/97	RJC	
Suspended solids, total	174	mg/L	EPA 160.2	7/30/97	PML	

*RESULTS OF RETESTED SAMPLE*

*Km*

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***KAR Laboratories, Inc.***

(616) 381-9666

## LABORATORY REPORT

Client: *Simpson Plainwell Paper Company*

KAR Project No. : **971387**

Date Reported : **05/15/97**

Project Description : *Sampling and analysis of two wastewater discharges.*

Sample ID : **"Waste Treatment, 24 Hr. Composite, 4/30-5/1/97, 3:08pm-4:02pm"**

Sampled By : *SNH of KAR Laboratories*

Date Received : **5/1/97**

Sample Date :

Sample Type : **aqueous**

Sample Time :

KAR Sample No. : **971387-01**

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Cr6	Completed		EPA 218.5	5/2/97	DBL	
Prep, Hg	Completed		EPA 245.2	5/5/97	MTM	
Prep, metals	Completed		EPA 30xx, 200.x	5/5/97	DBL	
Cadmium, total	<0.005	mg/L	EPA 200.7	5/7/97	MTM	
Chromium, hexavalent	<0.05	mg/L	EPA 218.5	5/8/97	MTM	
Chromium, total	<0.01	mg/L	EPA 200.7	5/7/97	MTM	
Copper, total	0.13	mg/L	EPA 200.7	5/7/97	MTM	
Iron, total	0.53	mg/L	EPA 200.7	5/7/97	MTM	
Lead, total, by ICP	0.07	mg/L	EPA 200.7	5/7/97	MTM	
Mercury, total	0.0013	mg/L	EPA 245.2	5/6/97	MTM	
Nickel, total	<0.02	mg/L	EPA 200.7	5/7/97	MTM	
Tin, total	<3	mg/L	EPA 282.1	5/13/97	MTM	
Zinc, total	0.12	mg/L	EPA 200.7	5/7/97	MTM	
BOD	333	mg/L	SM(19) 5210 B	5/2/97	RJC	
COD	600	mg/L	SM(18) 5220 D	5/5/97	ALW	
Chlorine demand	1.4	mg/L	SM(19) 2350 B	5/2/97	CCP	
Oil and grease	60	mg/L	EPA 413.1 (grav)	5/13/97	PML	
Phenols, total	0.214	mg/L	EPA 420.1	5/12/97	CCP	
Phosphorus, total (as P)	11.2	mg/L	SM Ed18 4500-P E	5/13/97	ALW	
Suspended solids, total	122	mg/L	EPA 160.2	5/6/97	PML	

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*KAR Laboratories, Inc.*

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## LABORATORY REPORT

Client: *Simpson Plainwell Paper Company*

KAR Project No. : **971387**

Date Reported : **05/15/97**

Project Description : *Sampling and analysis of two wastewater discharges.*

Sample ID : <b><u>"Waste Treatment, Grab"</u></b>						
Sampled By : <i>SNH of KAR Laboratories</i>				Date Received : <b>5/1/97</b>		
Sample Date : <b>5/1/97</b>				Sample Type : <b>aqueous</b>		
Sample Time : <b>4:02pm</b>				KAR Sample No. : <b>971387-02</b>		
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
<i>Cyanide, total</i>	<b>&lt;0.005</b>	<i>mg/L</i>	<i>EPA 335.2</i>	<b>5/8/97</b>	<i>PML</i>	
<i>Flash Point</i>	<b>&gt;200</b>	<i>degrees F.</i>	<i>EPA 1010</i>	<b>5/2/97</b>	<i>RJC</i>	
<i>PH</i>	<b>7.8</b>	<i>S.U.</i>	<i>EPA 150.1</i>	<b>5/1/97</b>	<i>SNH</i>	
<i>Temperature</i>	<b>61</b>	<i>degrees F.</i>	<i>SM Ed18 2550 B</i>	<b>5/1/97</b>	<i>SNH</i>	

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***KAR Laboratories, Inc.***

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## LABORATORY REPORT

Client: *Simpson Plainwell Paper Company*

KAR Project No. : **971387**

Date Reported : **05/15/97**

Project Description : *Sampling and analysis of two wastewater discharges.*

Sample ID : <b>"Mill Plant, 24 Hr. Composite, 4/30-5/1/97, 3:20pm-4:24pm"</b>						
Sampled By : <i>SNH of KAR Laboratories</i>			Date Received : <b>5/1/97</b>			
Sample Date :			Sample Type : <b>aqueous</b>			
Sample Time :			KAR Sample No. : <b>971387-03</b>			
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Cr6	Completed		EPA 218.5	5/2/97	DBL	
Prep, Hg	Completed		EPA 245.2	5/5/97	MTM	
Prep, metals	Completed		EPA 30xx, 200.x	5/5/97	DBL	
Cadmium, total	<0.005	mg/L	EPA 200.7	5/7/97	MTM	
Chromium, hexavalent	<0.05	mg/L	EPA 218.5	5/8/97	MTM	
Chromium, total	<0.01	mg/L	EPA 200.7	5/7/97	MTM	
Copper, total	0.06	mg/L	EPA 200.7	5/7/97	MTM	
Iron, total	0.40	mg/L	EPA 200.7	5/7/97	MTM	
Lead, total, by ICP	<0.05	mg/L	EPA 200.7	5/7/97	MTM	
Mercury, total	<0.0005	mg/L	EPA 245.2	5/6/97	MTM	
Nickel, total	<0.02	mg/L	EPA 200.7	5/7/97	MTM	
Tin, total	<3	mg/L	EPA 282.1	5/13/97	MTM	
Zinc, total	0.26	mg/L	EPA 200.7	5/7/97	MTM	
BOD	376	mg/L	SM(19) 5210 B	5/2/97	RJC	
COD	214	mg/L	SM(18) 5220 D	5/5/97	ALW	
Chlorine demand	18.5	mg/L	SM(19) 2350 B	5/2/97	CCP	
Oil and grease	17	mg/L	EPA 413.1 (grav)	5/13/97	PML	
Phenols, total	0.041	mg/L	EPA 420.1	5/12/97	CCP	
Phosphorus, total (as P)	14.6	mg/L	SM Ed18 4500-P E	5/13/97	ALW	
Suspended solids, total	1190	mg/L	EPA 160.2	5/6/97	PML	

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*KAR Laboratories, Inc.*

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## LABORATORY REPORT

Client: *Simpson Plainwell Paper Company*

KAR Project No. : **971387**

Date Reported : **05/15/97**

Project Description : *Sampling and analysis of two wastewater discharges.*

Sample ID : **"Mill Plant, Grab"**

Sampled By : *SNH of KAR Laboratories*

Date Received : **5/1/97**

Sample Date : **5/1/97**

Sample Type : **aqueous**

Sample Time : **4:24pm**

KAR Sample No. : **971387-04**

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Cyanide, total	<0.005	mg/L	EPA 335.2	5/8/97	PML	
Flash Point	>200	degrees F.	EPA 1010	5/2/97	RJC	
PH	8.4	S.U.	EPA 150.1	5/1/97	SNH	
Temperature	79	degrees F.	SM Ed18 2550 B	5/1/97	SNH	

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***KAR Laboratories, Inc.***

**(616) 381-9666**

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BY Bryan Pond

NOV 08 1999

ISSUED

IU Permit No. PL00SIM02

Page 1 of 26

CITY OF PLAINWELL  
WWTP

**INDUSTRIAL USER PERMIT**

CITY OF PLAINWELL  
WASTEWATER TREATMENT PLANT

In accordance with the City of Plainwell's Sewer Use Ordinance (Ordinance No. 274 , adopted August 23, 1998) (referred to herein as the "Sewer Use Ordinance"):

Plainwell Inc  
200 Allegan St.  
Plainwell, MI 49080

(the "Permittee") is hereby authorized to discharge industrial wastewater from the facility identified above and through the outfall identified in this permit into the City of Plainwell POTW ("POTW") in accordance with the conditions set forth in this permit. Compliance with this permit does not relieve the Permittee of its obligation to comply with any or all applicable pretreatment regulations, standards or requirements under local, state, or federal laws, including any regulations, standards, requirements or laws that may become effective during the term of this permit.

Noncompliance with any term or condition of this permit is a violation of the Sewer Use Ordinance and may also violate other applicable state and federal laws and regulations.

This permit is based on an application submitted on August 25, 1998.

On its effective date, this permit shall supersede any prior permit or other authorization to discharge, if any.


Date Permit Issued: February 15, 1999

Permit Effective Date: February 15, 1999

Permit Expiration Date: February 15, 2004

Permit Renewal Application  
Must Be Filed No Later Than: July 31, 2003

By:

  
Bryan Pond, WWTP Superintendent

*This permit was modified on November 3, 1999 based on a request received from Plainwell Inc. representative Khaja Naimuddin (attached) modifying the company name, deleting Outfall 001-A and setting the sampling interval for Phosphorous and pH to semi-annually.*

**PART 1. EFFLUENT LIMITATIONS AND DISCHARGE PROHIBITIONS.**

- A. During the period beginning on February 15, 1999, and ending on February 15, 2004, the Permittee is authorized to discharge wastewater to the POTW from the outfall described below:

**Outfall Name and/or Location of Outfall and Type of Discharge**

001 The 6 inch discharge line located in the basement of the paper machines. This discharge point is for sanitary sewage (segregated normal strength domestic waste) discharges only. It will be used to sample for all applicable limitations.

- B. The discharge from Outfall 001 as authorized by this permit shall not exceed the following specific effluent limitations:

- (1) Pollutants in concentrations that exceed the daily maximum or monthly average concentrations listed below in this subsection:

<b><u>Parameter</u></b>	<b><u>Daily Maximum (ug/l)</u></b>	<b><u>4-Day Average (ug/l)</u></b>	<b><u>Monthly Avg. (ug/l)</u></b>
Arsenic	230	---	---
Cadmium	200	---	---
Chromium (T)	2000	---	---
Chromium, Hexavalent	100	---	---
Copper	1000	---	---
Cyanides (T)	100	---	---
Lead	400	---	---
Molybdenum	2000	---	---
Nickel	1000	---	---
Selenium	270	---	---
Silver	440	---	---
Zinc	3000	---	---
Phenols(T)	1500 <sub>1</sub>	---	---

<b><u>Parameter</u></b>	<b><u>Daily Maximum (mg/l)</u></b>	<b><u>4-Day Average (mg/l)</u></b>	<b><u>Monthly Avg. (mg/l)</u></b>
Ammonia Nitrogen (NH <sub>3</sub> as N)	260 <sub>2</sub>	---	---
BOD	4700 <sub>3</sub>	---	---
Phosphorous (T)	83 <sub>4</sub>	---	---
TSS	2600 <sub>5</sub>	---	---

**Notes:**

- 1 Total phenol is defined as the sum of any of the following phenolic compounds: 2-Chlorophenol, 4-Chlorophenol, 2,4-Dichlorophenol, 2,4-Dimethylphenol, 2-Methylphenol, 2-Nitrophenol, 4-Nitrophenol and Phenol.

For Ammonia Nitrogen, BOD, Phosphorous and TSS, the listed daily maximum and monthly average limits are the concentrations which may not be exceeded and at which enforcement



begins. The surcharge threshold concentrations as specified in notes 3 through 6 below are the concentrations above which surcharges may be imposed. Discharges exceeding the surcharge thresholds, but which are less than the daily maximum and monthly average limits (and which do not violate any other applicable prohibitions, limitations or requirements), are not violations of the Sewer Use Ordinance, but are subject to surcharges as provided by the Sewer Use Ordinance. All exceedences of applicable discharge prohibitions and limitations and all instances of noncompliance with applicable discharge requirements constitute a violation of the Sewer Use Ordinance, subject to applicable fines, penalties and other enforcement actions. In no event shall the imposition of a surcharge for a discharge which does not meet the applicable prohibitions, limitations or requirements be construed as authorizing the illegal discharge or otherwise excuse a violation of the Sewer Use Ordinance.

- 2 Any discharge of ammonia nitrogen in excess of 20 mg/l (daily maximum) shall be subject to surcharge as provided by the Sewer Use Ordinance.
- 3 Any discharge of BOD in excess of 200 mg/l (daily maximum) shall be subject to surcharge as provided by the Sewer Use Ordinance.
- 4 Any discharge of Total Phosphorous in excess of 5 mg/l (daily maximum) shall be subject to surcharge as provided by the Sewer Use Ordinance.
- 5 Any discharge of TSS in excess of 250 mg/l (daily maximum) shall be subject to surcharge as provided by the Sewer Use Ordinance.

(2) Pollutants in concentrations that exceed the instantaneous maximum concentrations listed below in this subsection:

<u>Parameter</u>	<u>Instantaneous Maximum</u>
------------------	------------------------------

Mercury	Nondetect. Compliance with the nondetect limit shall be determined using the quantification level as follows: Any discharge of mercury at or above the quantification level of 0.2 ug/L is a specific violation of this permit and the Sewer Use Ordinance. In no case shall the quantification level exceed 0.2 ug/L, unless a higher quantification level is approved by the POTW because of sample matrix interference. Mercury sampling procedures, preservation and handling, and analytical protocol for compliance monitoring shall be in accordance with EPA method 245.1. (The method detection limit ("MDL") shall be established pursuant to the procedure for determination of the MDL as set forth in section 3(a) of Appendix B of 40 CFR part 136. The MDL study used to determine the MDL shall be made available to the POTW immediately upon request.)
---------	--

PCBs (T)	Nondetect. Compliance with the nondetect limit shall be determined using the quantification level as follows: Any discharge of PCBs at or above the quantification level of 0.1 ug/L is a specific violation of this permit and the Sewer Use Ordinance. In no case shall the quantification level exceed 0.1 ug/L, unless a higher quantification level is approved by the POTW because of sample matrix interference. Total PCBs is defined as the sum of any identified Aroclors, including, but not limited to, Aroclors 1242, 1248, 1254 and 1260. In addition, any detected Aroclor-specific measurements shall be reported. PCB sampling procedures, preservation and handling, and analytical protocol for compliance monitoring shall be in accordance with EPA method 608. (The method
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detection limit ("MDL") shall be established pursuant to the procedure for determination of MDL as set forth in section 3(a) of Appendix B of 40 CFR part 136. The MDL study used to determine the MDL shall be made available to the POTW immediately upon request.)

- C. The Permittee shall not contribute or cause to be contributed to the POTW, directly or indirectly, any pollutant, substance or wastewater which will cause "pass through" or "interference" as those terms are defined by the Sewer Use Ordinance.
- D. The Permittee shall not contribute or cause to be contributed to the POTW, directly or indirectly, any of the substances, pollutants, or wastewater prohibited by Section 6.3(c) through 6.3(y) of the Sewer Use Ordinance.
- E. The dilution of any of Permittee's effluent or discharge as a partial or complete substitute for adequate treatment to achieve compliance with applicable local, state or federal standards or limitations is prohibited as provided by Section 6.7 of the Sewer Use Ordinance.
- F. Permittee's discharges shall at all times comply with all other applicable local, state and federal laws, regulations, standards, and requirements, including, without limitation, the Sewer Use Ordinance, and including any such laws, regulations, standards, or requirements that may become effective during the term of this permit.

## **PART 2. MONITORING AND SAMPLING REQUIREMENTS.**

The Permittee shall comply with all monitoring requirements as provided by this permit, the Sewer Use Ordinance and other applicable laws and regulations, including, without limitation, the following:

- A. Monitoring Location, Frequency and Sample Type. During the period beginning on February 15, 1999, and ending on February 15, 2004, the Permittee shall monitor Outfall 001 for the following sample parameters, according to the following monitoring locations, frequencies, and sample types:

<u>Parameter</u>	<u>Location</u> <sup>1</sup>	<u>Frequency</u> <sup>2</sup>	<u>Type</u> <sup>3</sup>
Arsenic	Outfall 001	Semi Annually	Composite
Cadmium	Outfall 001	Semi Annually	Composite
Chromium (T)	Outfall 001	Semi Annually	Composite
Chromium, Hexavalent	Outfall 001	Semi Annually	Composite
Copper	Outfall 001	Semi Annually	Composite
Cyanides (T)	Outfall 001	Semi Annually	Grab <sup>4</sup>
Lead	Outfall 001	Semi Annually	Composite
Molybdenum	Outfall 001	Semi Annually	Composite
Nickel	Outfall 001	Semi Annually	Composite
Phenol (T)	Outfall 001	Semi Annually	Grab
Selenium	Outfall 001	Semi Annually	Composite
Silver	Outfall 001	Semi Annually	Composite
Zinc	Outfall 001	Semi Annually	Composite

Mercury	Outfall 001	Semi Annually	Composite
PCBs (T)	Outfall 001	Semi Annually	Composite
Ammonia Nitrogen (NH <sub>3</sub> as N)	Outfall 001	Semi Annually	Composite
BOD-5	Outfall 001	Semi Annually	Composite
Phosphorus (T)	Outfall 001	Semi Annually	Composite
pH	Outfall 001	Semi Annually	Grab

Notes:

1. The precise sample monitoring or measurement location shall be as shown in the permit application materials or as otherwise specified by the POTW.
2. "Daily" means at least once within every 24 hour period; "weekly" means at least once within every 7 day period; "quarterly" means at least once within every 3 month period (once during March, June, September, and December, unless otherwise noted); "semi-annually" means at least twice per year (once during June and December, unless otherwise noted); and "continuous" means at all times during discharge. For purposes of computing a 4-day average limitation, the sampling episode shall consist of a minimum of 4 consecutive days of samples, and each day the sample shall be analyzed and reported separately.
3. "Grab" sample means an individual sample that is taken from a wastestream on a one-time basis without regard to the flow in the wastestream and over a period of time not to exceed 15 minutes. "Composite" sample means a series of individual samples taken at regular intervals over a specific time period and combined into a single sample (formed either by continuous sampling or by mixing discrete samples) representative of the average stream during the sampling period. For categorical sampling, a composite sample shall consist of at least four (4) individual samples taken within a 24 hour period. Except as provided below, a composite sample shall be a 24-hour flow proportioned composite sample. If it is not feasible to obtain a flow proportioned composite sample, and if the Permittee demonstrates to the POTW's satisfaction that a representative sample will be obtained, the POTW may approve the use of a 24-hour time proportioned composite sample (or a minimum of 4 grab samples, as determined appropriate by the POTW) in lieu of the flow proportioned composite sample.

The Permittee may be required by the POTW to perform additional monitoring of the parameters listed in this section (including, without limitation, different locations, frequencies or sample types) as determined necessary by the POTW or as otherwise authorized under applicable laws and regulations.

- B. Monitoring - Special Requirements. In addition to any other applicable monitoring requirements, the Permittee shall also comply with any special monitoring requirements as specified by this section.

[None Applicable.]

- C. Automatic Resampling Upon Indication of Permit Violation; Notification and Report Required. If sampling performed by the Permittee indicates a violation, the Permittee shall notify the WWTP Superintendent within 24 hours of becoming aware of the violation. The Permittee shall also repeat the sampling and analysis and submit the results of the repeat analysis to the POTW within 30 days after becoming aware of the violation, except that the Permittee shall not be required to resample if (a) the POTW performs sampling at the Permittee's facility at a frequency of at least once per month, or (b) the POTW performs sampling at the Permittee's facility between the time when the Permittee performs its initial sampling and the time when the Permittee receives the results of the sampling that indicates the violation. If the Permittee uses its own laboratory for sample analysis, the WWTP Superintendent may require the Permittee to send split samples to an independent laboratory at a frequency specified by the Superintendent as a quality control check.
- D. Monitoring Points. All samples and measurements shall be taken at the monitoring points specified in this permit and, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water or substance. The Permittee shall not change monitoring points without the prior approval of the POTW.
- E. Sampling and Analytical Methods to Demonstrate Compliance. All sampling, measurements, tests, and analyses of the characteristics of discharges to the POTW shall be performed in accordance with the procedures approved by the U.S. EPA contained in 40 CFR part 136. If, as determined by the WWTP Superintendent, the sampling and analytical techniques contained in 40 CFR part 136 are not available, do not apply to the discharge or pollutants in question, are not appropriate under the circumstances for application to the discharge or pollutants in question, or where one or more alternate techniques are available under 40 CFR part 136, sampling and analysis shall be performed using validated sampling and analytical methods and procedures approved or required by the POTW.
- F. Representative Sampling. All samples and measurements taken as required by this permit shall be representative of the volume and nature of the monitored discharge. This shall be subject to verification by the POTW through the use of split sampling or other means determined necessary by the POTW.
- G. Flow Measurement. If the Permittee is required by this permit to measure flow, the Permittee shall use flow measurement devices and methods consistent with approved scientific practices to ensure the accuracy and reliability of measurements of the volume of monitored discharges. Measurement devices used by the Permittee shall be capable of measuring flows with a maximum deviation of less than 10 percent from true discharge rates throughout the range of expected discharge volumes.
- H. Maintenance, Repair and Calibration of Sampling Equipment. All equipment used for sampling, measurement and analysis as required by this permit must be routinely calibrated, inspected, and maintained by the Permittee as provided by the Sewer Use Ordinance. Calibration, inspection and maintenance shall be performed as often as necessary to ensure that monitoring data, measurements and analysis are accurate and representative, and consistent with the accepted capability of the type of equipment used. The Permittee shall keep a complete and accurate written record of all calibrations, inspections and maintenance done (including, without limitation, the date and time of the activity, a description of what was done and the methods used, the names of persons conducting the activity, and any required or recommended follow-up). The record shall also include a description of all problems discovered regarding the equipment

whether in response to a regularly scheduled inspection or otherwise. The POTW, in any event, may inspect and test a user's sampling and flow measurement equipment and instruments at all reasonable times.

- I. Records of Sampling and Analysis. The Permittee shall keep a written record of all samples, measurements, and analysis required by this permit and the Sewer Use Ordinance. At a minimum, the records shall include the date, exact place, time (including start time and stop time) and method of sampling or measurement, and the name(s) of person(s) taking the samples or measurements; sampler programming information; the sample preservation techniques or procedures used; the full chain-of-custody for each sample; the dates the analyses were performed; who performed the analyses; the analytical techniques and methods used; quality assurance/quality control (QA/QC) procedures used and QA/QC data; and the results of the analyses. Records shall be maintained and retained as provided by Section 7.7 of the Sewer Use Ordinance.

### **PART 3. SPECIAL CONDITIONS.**

The Permittee shall comply with any special conditions specified by this section.

*[None Applicable.]*

### **PART 4. REPORTING AND NOTIFICATION REQUIREMENTS.**

- A. Required Reports and Notifications. The Permittee shall comply with all reporting and notice requirements as provided by this permit, the Sewer Use Ordinance, and other applicable laws and regulations, including, without limitation, the following:
1. Baseline Reports. As applicable to the Permittee, the Permittee shall submit to the POTW within the required submission deadlines the reports as required by Section 7.3(a)(1) of the Sewer Use Ordinance.
  2. Reports on Compliance with Categorical Pretreatment Standard Deadline. As applicable to the Permittee, the Permittee shall submit to the POTW within the required submission deadlines the reports as required by Section 7.3(a)(2) of the Sewer Use Ordinance.
  3. Periodic Reports on Continued Compliance. All monitoring results obtained by the Permittee as required by this permit shall be summarized and reported on an Industrial User Monitoring Report Form once every 6 months (unless required more frequently by the applicable pretreatment standard or by the POTW) as otherwise required by Section 7.3(a)(3) of the Sewer Use Ordinance. The reports are due on the 30th day of June and December of each year (unless alternate months are specified by the POTW). The first report is due on June 30, 1999. Each report shall indicate, without limitation, the following information for the applicable reporting period: the nature and concentration of all pollutants in the effluent for which sampling and analysis were performed; the measured maximum and average daily flows; the names of all person(s) responsible for operating and maintaining any pretreatment equipment, pretreatment processes, or responsible for wastewater management at the Permittee's facilities, with a brief description of each person's duties; information regarding materials or substances which may cause interference or pass through; and any other information required by the Sewer

Use Ordinance or deemed necessary by the POTW to assess and assure compliance with applicable discharge requirements or to safeguard the operation of the POTW.

4. Notice of Potential Problems. The Permittee shall immediately notify the POTW of any discharge by the Permittee that could cause problems to the POTW, including, without limitation, slug loadings, or discharges that exceed any applicable discharge prohibition or limitation, or otherwise result in noncompliance with permit requirements.
5. Notice by User of Violation of Pretreatment Standards. If sampling performed by an industrial user indicates a violation, the user shall notify the POTW within 24 hours of becoming aware of the violation (and shall comply with other applicable requirements provided by Section 7.2(f) of the Sewer Use Ordinance regarding repeat sampling and analysis).
6. Notice of Changed Discharge or Change in User Status. The Permittee shall promptly notify the POTW in advance of any substantial change in the volume or character of pollutants in its discharge, or of any facility expansion, production increase, or process modifications that could result in a substantial change in the volume or character of pollutants in its discharge, as provided by Section 7.3(e) of the Sewer Use Ordinance.
7. Notice Regarding Discharge of Wastes That Are Otherwise Hazardous. If the Permittee discharges to the POTW a substance that, if disposed of other than by discharge to the POTW, would be a hazardous waste under 40 CFR part 261 or under the rules promulgated under the state hazardous waste management act (Part 111 of Act 451 of the Public Acts of Michigan of 1994, MCLA §§ 324.11101 et seq., as amended), the Permittee shall notify the WWTP Superintendent, the U.S. EPA Region V Waste Management Division Director, and the Chief of the Waste Management Division of the Michigan Department of Environmental Quality, of the discharge as required by MAC R 323.2310(15).
8. Notice Regarding Installation of New Pretreatment Facilities. Within 5 days after completing installation of new pretreatment facilities, the Permittee shall notify the POTW in writing of the time and date when it intends to commence operation of the new facilities, and the identity of the person who will conduct any tests to be performed. The pretreatment facilities shall not be placed in regular operation until adequate tests have been conducted to establish that the discharges will comply with the requirements of this permit and other applicable laws and regulations. Upon prior written request by the POTW, the Permittee shall allow a representative of the POTW to observe the tests at the time they are conducted. The cost of the tests shall be paid by the Permittee.
9. Other applicable reporting and notification requirements. The Permittee shall comply with other applicable reporting and notice requirements as provided by this permit, the Sewer Use Ordinance, or any other applicable laws or regulations, including, without limitation, the reporting and notice requirements in connection with accidental discharges (Section 7.8 of the Sewer Use Ordinance), upset (Section 7.9 of the Sewer Use Ordinance), and bypass (Section 7.10 of the Sewer Use Ordinance), and any other reports or notice requirements determined necessary by the POTW to assess and assure compliance with the requirements of the Sewer Use Ordinance.

**B. Requirements Applicable to All Reports and Notifications.** All reports and notifications submitted by the Permittee to the POTW as required by this permit shall meet the following requirements:

1. All reports required by this permit shall be based upon data obtained through appropriate sampling and analysis performed during the period covered by the report. The data shall be representative of conditions occurring during the applicable reporting period.
2. If the Permittee monitors any pollutant or sampling parameter more frequently than required by this permit, using test procedures prescribed in 40 CFR Part 136, as amended, (or otherwise approved by EPA or as specified in this permit), the results of such additional monitoring shall be included in any calculations of actual daily maximum, monthly average, or instantaneous pollutant discharge, and these results, along with the increased monitoring frequency, shall be included in all reports and notifications submitted to the POTW pursuant to this permit.
3. The POTW may require that reports, notifications, and other required documents and data be submitted in a standardized format, as specified by the POTW.
4. If the POTW instead of the Permittee collects all of the information, including flow data, required for a report required by Sections 7.3(a) or 7.3(b) of the Sewer Use Ordinance, the POTW may in its discretion waive the requirement that the report be submitted by the Permittee.
5. The reports, notifications, and other documents and data required to be submitted or maintained by this permit and the Sewer Use Ordinance shall be subject to all of the provisions as specified by MAC R 323.2310(13).
6. Failure to provide the notifications and reports required by this permit constitutes a violation of this permit and the Sewer Use Ordinance. Providing the required notifications and reports shall not relieve the Permittee of any expense, loss, damage, or other liability which may be incurred as a result of damage to the POTW, fish kills, or any other damage to person or property; nor shall such notification or report relieve the Permittee of any fines, penalties, or other liability which may be imposed by applicable laws or regulations. Further, the reporting and notification requirements required by this permit shall not be construed to authorize a discharge which exceeds a discharge prohibition or limitation under this permit or other applicable laws or regulations.
7. All written reports and notifications required by this permit shall be signed and certified as follows:
  - a. **Required Signatures.** The reports and notifications shall be signed by an "authorized representative" of the User as defined in Section 2.1 of the Sewer Use Ordinance.
  - b. **Required Certification.** The reports and notifications shall include the following certification statement:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

8. All written reports and notifications required by this permit shall be submitted to the POTW at the following address:

Plainwell Wastewater Treatment Plant  
Attn: Bryan Pond, WWTP Superintendent  
141 N. Main Street  
Plainwell, Michigan 49080

9. All non-written or oral notifications required by this permit shall be made by contacting the POTW at the following telephone numbers:
- a. Monday through Friday, 7:00 AM to 3:30 PM: 616-685-5153 or 616-685-1982.
  - b. All other times (including after hours, weekends and holidays): 616-685-9858.

## **PART 5. ACCIDENTAL DISCHARGE.**

- A. **Accidental Discharge Requirements.** The Permittee shall meet and maintain compliance at all times with the minimum requirements for preparing for, responding to, and reporting, accidental discharges to the POTW as provided by Section 7.8 of the Sewer Use Ordinance, and any additional or more restrictive requirements provided by this permit, a slug control plan, or other applicable laws and regulations.
- B. **Accidental Discharge Notice and Report.**

- 1. Upon the occurrence of any accidental discharge of any substance, pollutant or wastewater prohibited by this permit, or the occurrence of any slug load or spill that may enter the POTW, the Permittee shall *immediately* (regardless of the time of day) notify the POTW of the incident by telephone at the telephone numbers provided in Part 4, Section (B)(8) of this permit. The notification shall include all available information regarding the date, time and location of the discharge, its volume, duration, constituents, loading and concentrations, corrective actions taken and required, and other available information as necessary to determine what impact the discharge may have on the POTW.
- 2. Within 5 days of an accidental discharge, the Permittee shall submit to the POTW a detailed written report. The report shall specify the same and any additional available information regarding the accidental discharge, slug load or spill as required by Section (B)(1), above. The report shall also specify the cause of the incident; the exact dates and



times of noncompliance and, if the noncompliance is continuing, the time by which compliance is reasonably expected to occur; the impact on the Permittee's compliance status; the measures that have been or will be taken by the Permittee to prevent similar future incidents from occurring.

#### **PART 6. UPSET.**

- A. **Affirmative Defense.** An upset constitutes an affirmative defense to an action brought for noncompliance with categorical pretreatment standards if *all* of the requirements of Section (B), below, are met by the Permittee. In any enforcement proceeding, the Permittee shall have the burden of proof by clear and convincing evidence to establish the occurrence of an upset and that the noncompliance in question was attributable to the upset event. Even if the Permittee establishes the upset defense for a particular noncompliance event, the Permittee shall nevertheless be liable for surcharges for exceeding applicable discharge limitations as a result of the upset as provided by this permit and the Sewer Use Ordinance.
- B. **Conditions Necessary to Demonstrate Upset.** To establish the upset affirmative defense, the Permittee must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence, all of the following:
1. An upset occurred and the Permittee can identify the cause(s) of the upset;
  2. The facility was at the time being operated in a prudent and workmanlike manner and in compliance with all applicable operation and maintenance procedures;
  3. The Permittee submitted the following information to the POTW within 24 hours of becoming aware of the upset (if this information is provided orally, a written report must be provided by the Permittee within 5 days of becoming aware of the upset):
    - a. A description of the discharge and cause of non-compliance;
    - b. The period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the non-compliance is expected to continue; and
    - c. The steps being taken and/or planned to reduce, eliminate, and prevent recurrence of the noncompliance.
- C. **Permittee Responsibility in Case of Upset.** If an upset occurs, the Permittee must halt, reduce or otherwise control its production and all discharges, as necessary to comply with categorical pretreatment standards and other applicable limits, until the cause of the noncompliance is corrected. (See also, Part 10, Section (D), "Duty to Halt or Reduce Activity.")

#### **PART 7. BYPASS.**

- A. **Bypass Prohibited.** Except as provided by Section (D) of this Part, the bypass of industrial wastes from any portion of the Permittee's facility is prohibited unless:
1. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

2. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated waste, or maintenance during normal periods of equipment downtime; and
3. The Permittee provided notice as required under Section (B) of this Part.

**B. Required Notices.**

1. **Anticipated bypass.** If the Permittee knows in advance of the need for a bypass, it must submit prior notice of the bypass to the POTW. Such notice shall be submitted to the POTW as soon as the Permittee becomes aware of the need for the bypass, and if possible, at least 10 days before the date of the bypass.
2. **Unanticipated bypass.** Within 24 hours from the time the Permittee becomes aware of an unanticipated bypass that exceeds applicable pretreatment standards, the Permittee must submit oral notice of the bypass to the POTW. A written report must also be provided to the POTW within 5 days of the time the Permittee becomes aware of the bypass. The written report shall contain a description of the bypass and its cause; the duration of the bypass, including exact dates and times, and, if the bypass has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the bypass. The WWTP Superintendent may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

**C. POTW Approved Bypass.** The WWTP Superintendent may approve an anticipated bypass, after considering its adverse effects, if the Superintendent determines that it meets the conditions set forth in Section (A)(1), (2) and (3), above. It shall be a violation of this permit and the Sewer Use Ordinance for the Permittee to allow an anticipated bypass to occur without the prior approval of the Superintendent.

**D. Bypasses Not Violating Applicable Pretreatment Standards or Requirements.** The Permittee may allow a bypass to occur that does not cause or result in noncompliance with this permit, the Sewer Use Ordinance, or applicable state or federal laws or regulations, but only if the bypass is for essential maintenance to assure efficient operation of the Permittee's facility. Such bypasses are not subject to the provisions of Sections (A), (B) and (C) of this Part. However, this section shall not be construed to authorize a discharge which exceeds a discharge prohibition or limitation under this permit or other applicable laws or regulations; nor to relieve the Permittee for any expense, loss, damage, or liability which may be incurred as a result of the bypass, such as damage to the POTW, fish kills, or any other damage to person or property; nor to relieve the Permittee of any fines, penalties or other liability which may be imposed by applicable laws or regulations as a result of the bypass.

**PART 8.      MODIFICATION,      SUSPENSION,      REVOCATION,      REISSUANCE,**  
**EXPIRATION, CONTINUATION AND/OR TRANSFER.**

**A. Permit Modification.** This permit may be modified by the POTW for any reason determined necessary by the POTW to assure compliance with the requirements of the Sewer Use Ordinance

and other applicable laws and regulations, including, without limitation, any of the following reasons:

1. To incorporate any new or revised local, state or federal pretreatment standards or requirements, or other applicable requirements of law or regulation.
2. Material or substantial changes or additions to the Permittee's operations, processes, or the character or quality of discharge which were not considered in drafting or issuing the existing permit.
3. A change in any condition in either the Permittee's discharge, facility, production or operations, or in the POTW, that requires either a temporary or permanent reduction or elimination of the Permittee's discharge to assure compliance with applicable laws, regulations or the POTW's NPDES permit.
4. Information indicating that the discharge as authorized by the existing permit poses a threat to the POTW's collection or treatment systems, POTW personnel or the receiving waters.
5. Violation of any terms or conditions of the permit.
6. Misrepresentation or failure to disclose fully all relevant facts in the permit application or in any required report or notification.
7. Revision of, or a grant of variance from, categorical standards pursuant to 40 CFR 403.13.
8. To correct typographical or other errors in the permit.
9. To reflect transfer of the facility ownership or operation to a new owner or operator.
10. To add or revise a compliance schedule for the Permittee.
11. To reflect changes or revisions in the POTW's NPDES permit.
12. To ensure POTW compliance with applicable sludge management requirements promulgated by EPA.
13. To incorporate any new or revised requirements resulting from reevaluation of the POTW's local limits.
14. To incorporate a request for modification by the Permittee, as determined appropriate by the POTW and provided the request does not create a violation of any applicable requirement, standard, law, rule or regulation.

The Permittee shall be informed by the POTW of any changes in the permit at least 30 days prior to the effective date of the change, unless a shorter time is determined necessary by the POTW to meet applicable laws or to protect human health or the environment.

B. Permit Suspension and Revocation. This permit may be suspended (for a specified period) or permanently revoked by the POTW for any reason determined necessary by the POTW to assure compliance with the requirements of the Sewer Use Ordinance, the POTW's NPDES permit, or other applicable laws and regulations, including, without limitation, any of the following reasons:

1. Falsifying self-monitoring reports.
2. Tampering with monitoring equipment.
3. Failure to allow reasonable access to the Permittee's premises and records by representatives of the POTW for purposes authorized by this chapter, including, without limitation, inspection or monitoring.
4. Failure to conduct any required self-monitoring or sampling.
5. Failure to meet effluent limitations.
6. Failure to pay fines or penalties.
7. Failure to pay sewer charges.
8. Failure to pay permit fees.
9. Failure to meet compliance schedules.
10. Failure to comply with any term or condition of the permit, the Sewer Use Ordinance, or any final judicial order entered with respect thereto.
11. Failure to comply with any reporting or notice requirement.
12. Failure to disclose fully all relevant facts in the permit application or during the permit issuance process, or misrepresentation of any relevant fact at any time.
13. A determination by the POTW that the discharge permitted by the permit has a reasonable potential to endanger human health or the environment and the threat can be abated only by suspension or revocation of the permit.

Upon suspension or revocation of a permit, the Permittee shall immediately terminate its discharge to the POTW and shall not thereafter recommence discharge without further authorization from the POTW as provided by the Sewer Use Ordinance.

C. Permit Reissuance. To apply for reissuance of this permit, the Permittee must submit a complete permit application accompanied by payment of an application fee to the POTW at least 180 days prior to the expiration date of the this permit. It shall be the responsibility of the Permittee to make a timely application for reissuance.

**D. Permit Expiration; Continuation of Expired Permits.**

1. This permit shall expire on the date indicated on page 1 of this permit. Except as provided by Section (D)(2) of this Part, upon expiration of this permit the Permittee shall immediately terminate its discharge to the POTW and shall not thereafter recommence discharge without further authorization from the POTW as provided by the Sewer Use Ordinance.
2. This permit shall continue to be effective (and the Permittee may continue its discharge to the POTW) after the date of expiration until it is reissued only if:
  - a. The Permittee has submitted a complete permit application at least 180 days prior to the expiration date of the Permittee's existing permit; and
  - b. The failure to reissue the permit, prior to expiration of the previous permit, is not due to any act or failure to act on the part of the Permittee.

**E. Limitations on Permit Transfer.** This permit was issued to the Permittee for discharge from a specific facility and operation and shall not be assigned or transferred or sold to a new or different owner, operator, user, discharger, facility or premises, or to a new or changed facility or operation, without the prior written approval of the WWTP Superintendent. If the transfer of the permit is approved, any succeeding transferee Permittee must also comply with the terms and conditions of this permit. The Superintendent may approve the transfer of this permit only if all of the following conditions are met:

1. The transferor (Permittee) shall give at least 90 days advance notice to the POTW of the proposed transfer of the permit (unless a shorter notice period is approved by the Superintendent in advance). The notice shall include a written certification signed by the proposed transferee which (a) states that the transferee has no present intent to change the facility's operations and processes; (b) identifies the specific date on which the transfer is to occur; (c) acknowledges that the transferee has read and fully understands all terms and conditions of the permit; and (d) acknowledges that the transferee accepts all of the terms and conditions of the permit as written and accepts full responsibility for complying with the existing permit if the transfer is approved.
2. The transferor has not violated any term or condition of the permit or of this ordinance during the 6 month period preceding the proposed date of the transfer.
3. As of the date of the proposed transfer, there are no unpaid charges, fines, penalties or fees of any kind due to the POTW or the City from the transferor or the transferee related to use of the POTW.
4. Except as to the identity of the new Permittee (the transferee), the application materials for the permit to be transferred as originally filed by the transferor, as well as the terms and conditions of the permit itself, are completely accurate with respect to, and fully applicable to, the discharge, facilities, and activities of the transferee.

If the transfer of this permit is approved, the POTW shall make the necessary minor modifications to the permit to show the transferee as the new Permittee, and a copy of the permit

shall be provided to the transferee for signature and certification by the transferee as provided by Section 7.3(j) of the Sewer Use Ordinance. The Permittee shall remain liable for any discharges to the POTW from the facility (along with any other persons actually discharging from the facility to the POTW) until a transfer of the permit has been approved in full compliance with the requirements of this section.

- F. Permit Not Stayed. Except as otherwise expressly provided by the Sewer Use Ordinance, no action taken or request filed by the Permittee shall operate to stay the effect of this permit or of any provision, term or condition of this permit, including, without limitation, a request for permit modification, reissuance, or transfer, or a notification of planned changes or anticipated noncompliance.

#### **PART 9. RECORDS RETENTION.**

The Permittee shall retain and preserve records and information related to matters regulated by this permit in accordance with the Section 7.7 of the Sewer Use Ordinance.

#### **PART 10. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS.**

- A. Provision of Necessary Pretreatment Facilities. The Permittee shall provide all necessary wastewater treatment as required to comply with all applicable pretreatment standards and requirements within the time limitations specified by this permit or other applicable law or regulation. All facilities required to pretreat wastewater shall be provided, operated, and maintained at the Permittee's expense. Detailed plans showing the pretreatment facilities and operating procedures shall be submitted to the POTW for review, and shall be acceptable to the POTW before construction of the facility. The review of such plans and operating procedures does not in any way relieve the Permittee from the responsibility of modifying the facility as necessary to produce an effluent acceptable to the POTW under the provisions of this permit. Any subsequent changes in the pretreatment facilities or method of operation shall be reported to and be approved by the POTW prior to the Permittee's initiation of the changes. (The Permittee shall notify the POTW regarding the installation of new pretreatment facilities as provided by Section 7.3(g) of the Sewer Use Ordinance.)
- B. Proper Operation and Maintenance. The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to comply with the requirements of this permit. Proper operation and maintenance includes, without limitation, effective performance, adequate funding, adequate operator staffing, and adequate quality assurance/quality control (QA/QC) procedures for sampling and analysis.
- C. Removed Substances. Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in accordance with Section 405 of the Clean Water Act and Subtitles C and D of the Resource Conservation and Recovery Act.
- D. Duty to Halt or Reduce Activity. Upon reduction of efficiency of operation, or loss, or failure of all or part of the Permittee's pretreatment equipment or facility, the Permittee shall, to the extent necessary to maintain compliance with categorical pretreatment standards and other applicable standards, requirements, and limits, control its production and all discharges until operation of the

equipment or facility is restored or an alternative method of treatment is provided. This requirement applies in situations, including, without limitation, where the primary source of power for the pretreatment equipment or facility is reduced, lost, or fails. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

- E. Duty to Mitigate. The Permittee shall take all reasonable steps to minimize or correct any adverse impact to the POTW or the environment resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.
- F. Duty to Pretreat Prior to Discharge to POTW. Except as otherwise expressly required by this permit, by the Sewer Use Ordinance, or other applicable law or regulation, the prohibitions and limitations provided by this permit shall apply at the point where wastewater and pollutants are discharged or caused to be discharged into the POTW and any required pretreatment shall, at a minimum, be completed before that point of discharge is reached.

#### **PART 11. INSPECTION, SURVEILLANCE AND MONITORING.**

- A. In General. The POTW is authorized to carry out all inspection, surveillance, sampling and monitoring activities and procedures, as necessary to determine, independent of information supplied by the Permittee or any other persons, compliance or noncompliance with applicable pretreatment standards and requirements, with this permit, the Sewer Use Ordinance, and other applicable laws and regulations. This authority includes, without limitation, the authority:
1. To verify the completeness, accuracy and representativeness of self-monitoring data submitted by or on behalf of the Permittee.
  2. To determine compliance with the requirements of this permit or the Sewer Use Ordinance.
  3. To support enforcement actions taken by the POTW against non-compliant Permittees.
  4. To determine if the Permittee has corrected problems identified in previous inspections.
  5. To identify whether or to what degree the Permittee influences the quality of the POTW's influent, effluent and sludge quality.
  6. To evaluate the impacts of the POTW's influent on its treatment processes and receiving stream.
  7. To evaluate the need for revised local limits.
  8. To maintain current data on the Permittee.
  9. To assess the adequacy of the Permittee's self-monitoring program and wastewater discharge permit.

10. To provide a basis for establishing sampling and monitoring requirements for the Permittee.
11. To evaluate the adequacy of the Permittee's operation and maintenance activities on its pretreatment system.
12. To assess the potential for spills and/or slug discharge control measures, and evaluate the effectiveness of spill and slug discharge control measures.
13. To gather information for industrial user permit development.
14. To evaluate compliance with existing enforcement actions.
15. To require the Permittee to submit one or more representative samples of the wastewater discharged or that the Permittee proposes to discharge into the POTW.

B. Right of Entry. The WWTP Superintendent and other authorized representatives of the city bearing proper credentials and identification are authorized to enter the Permittee's premises to conduct inspection, surveillance and monitoring activities as necessary to determine compliance with this permit and the Sewer Use Ordinance, and in that regard shall have, without limitation, the following minimum authority:

1. To enter into any premises of the Permittee in which a discharge source, treatment system or activity is located or in which records are required to be kept as provided by this permit or the Sewer Use Ordinance, for the purpose of inspecting, observing, measuring, sampling and testing the wastewater discharge, removing samples of wastewater for analysis, and inspecting and making copies of required records.
2. To set up and maintain on the Permittee's property such devices as are necessary to conduct sampling, inspection, compliance monitoring and/or metering operations, or to require the Permittee to do so, at the Permittee's sole expense.
3. To randomly sample and analyze the effluent from the Permittee and conduct surveillance activities to identify occasional and continuing noncompliance with applicable standards and requirements.
4. To inspect any production, manufacturing, fabrication, or storage area where pollutants, subject to regulation under this permit or the Sewer Use Ordinance, could originate, be stored, or be discharged to the POTW.
5. To enter all private properties through which the city or other governmental agency holds an easement for the purposes of, but not limited to, inspection, observation, measurement, sampling, repair, and maintenance of any portion of the POTW or wastewater transmission facilities lying within the easement.

C. Access Without Delay Required. The Permittee shall allow the POTW ready access at all reasonable times to all parts of the Permittee's facility where wastewater governed by this permit or the Sewer Use Ordinance is created, handled, conveyed, treated or discharged, or where any production, manufacturing, fabrication, or storage area where pollutants regulated by this permit



or the Sewer Use Ordinance could originate, be stored, or be discharged to the POTW, or where wastewater records are kept, for the purposes of inspection, sampling, records examination, or in the performance of any of the POTW's duties. If the Permittee has security measures in force that would require proper identification and clearance before entry into the premises by the POTW, the Permittee shall make necessary arrangements in advance with its security guards so that upon presentation of suitable identification, authorized representatives of the POTW (or authorized state or federal personnel) will be permitted to enter, without delay, for the purposes of performing their specific responsibilities.

- D. Refusal to Allow Entry. If the Permittee refuses to permit access to an authorized POTW representative or to permit the representative to obtain, take, and remove samples or make copies of documents or undertake other authorized inspection, surveillance and monitoring activities as provided by this permit or the Sewer Use Ordinance, the WWTP Superintendent may order the termination of the discharge of wastewater to the POTW; order the Permittee to permit access within a time certain; issue the Permittee a notice of violation of this section; or take other appropriate action as provided by this permit or the Sewer Use Ordinance and other applicable laws and regulations.
- E. Duty to Provide Information. The Permittee shall furnish to the POTW any available information which the POTW requests to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The Permittee shall also, upon request, furnish to the POTW copies of any records required to be kept by this permit. The information and records requested by the POTW shall be provided by the Permittee to the POTW within 24 hours of the request, unless an alternative time frame is specified by the POTW when making the request or unless the POTW allows additional time for the Permittee to submit the requested information based on a showing by the Permittee of good cause for any delay. The Permittee's failure to submit the requested information to the POTW within 24 hours (or within any alternate time period approved by the POTW as provided by this section) constitutes a violation of this permit.

## **PART 12. VIOLATIONS AND ENFORCEMENT.**

- A. Duty to Comply. The Permittee must comply with all standards, requirements and conditions of this permit, the Sewer Use Ordinance, any notice, order, decision or determination promulgated, issued or made by the POTW under the Sewer Use Ordinance, and state and federal laws and regulations. Failure to comply shall be grounds for enforcement action or proceedings, including, without limitation, those provided by this Part of the permit.
- B. Civil Administrative Fines. If the Permittee has violated, or continues to violate, any provision of this permit or the Sewer Use Ordinance, or any notice, order, decision or determination promulgated, issued or made by the POTW under the Sewer Use Ordinance, the Permittee shall be subject to a civil administrative fine of up to \$500.00 per violation, per day, as provided by the Sewer Use Ordinance. The civil administrative fine may be assessed in addition to any other charge, fee, surcharge, penalty or fine authorized or levied under this permit or the Sewer Use Ordinance. Civil administrative fines assessed by the POTW which have not been paid in full by the Permittee within 30 days of receipt of the notice of assessment shall be added to the Permittee's next scheduled service bill and shall be paid and collected along with other rates, charges, fines or penalties.

- C. Judicial Relief. The POTW may commence a civil action for appropriate judicial relief (including, without limitation, imposition of a permanent or temporary injunction, recovery of damages, fines, penalties, costs, surcharges, and such other relief as a court may order) for a violation of any provision of this permit or the Sewer Use Ordinance, or any notice, order, decision or determination promulgated, issued or made by the POTW under the Sewer Use Ordinance.
- D. Municipal Civil Infractions. If the Permittee violates any provision of this permit, the Sewer Use Ordinance, or any notice, order, decision or determination promulgated, issued or made by the POTW under the Sewer Use Ordinance, the Permittee shall (except as provided by Part 12, Section E) be responsible for a municipal civil infraction, subject to payment of a civil fine of not less than \$1,000.00 per day for each infraction and not more than \$10,000.00 per day for each infraction, plus costs and other sanctions, as provided by Section 10.10(a) of the Sewer Use Ordinance. Further, repeat offenses shall be subject to increased fines of not less than \$2,500.00 plus costs and other sanctions for a first repeat offense, and not less than \$5,000.00 plus costs and other sanctions for a second or any subsequent repeat offense as provided by Section 10.10(b) of the Sewer Use Ordinance.
- E. Criminal Penalties; Imprisonment. If the Permittee (1) at the time of a violation knew or should have known that a pollutant or substance was discharged contrary to any provision of this permit or the Sewer Use Ordinance, or contrary to any notice, order, decision or determination promulgated, issued or made by the POTW under the Sewer Use Ordinance; or (2) intentionally makes a false statement, representation, or certification in an application for, or form pertaining to a permit, or in a notice, report, or record required by this permit or the Sewer Use Ordinance, or in any other correspondence or communication, written or oral, with the POTW regarding matters regulated by this permit or the Sewer Use Ordinance; or (3) intentionally falsifies, tampers with, or renders inaccurate any sampling or monitoring device or record required to be maintained by this permit or the Sewer Use Ordinance; or (4) commits any other act that is punishable under state law by imprisonment for more than 90 days; shall, upon conviction, be guilty of a misdemeanor punishable by a fine of \$500.00 per violation, per day, or imprisonment for up to 90 days, or both in the discretion of the court, as provided by Section 10.11 of the Sewer Use Ordinance.
- F. Remedies Cumulative. The imposition of a single penalty, fine, order, damage, or surcharge upon the Permittee for a violation of any provision of this permit or the Sewer Use Ordinance, or any notice, order, decision or determination promulgated, issued or made by the POTW under the Sewer Use Ordinance, shall not preclude the imposition by the POTW or a court of competent jurisdiction of a combination of any or all of those sanctions and remedies, or additional sanctions and remedies, with respect to the same violation, consistent with applicable limitations of state and federal laws or regulations. A criminal citation and prosecution of a criminal action against the Permittee shall not be dependent upon and need not be held in abeyance during any civil, judicial, or city administrative proceeding, conference, or hearing regarding the Permittee.
- G. Separate Violations. Each day (or portion thereof) on which a violation occurs or continues is a separate and distinct violation for which applicable remedies may be imposed.
- H. Number of Violations. The number of violations resulting from noncompliance with applicable discharge prohibitions or effluent limitations shall be determined as follows:

1. Applicable concentration limitations and mass (or loading) limitations shall be treated as separate limitations, and the Permittee may be liable and penalized separately for exceeding any of those limitations for a single pollutant or sampling parameter.
2. Each violation of a daily maximum limit for a single pollutant or sampling parameter shall constitute a single violation for each day on which the violation occurs or continues.
3. Each violation of an instantaneous maximum limit for a single pollutant or sampling parameter shall constitute a single violation for each such exceedence, and there may be multiple violations for each day on which such a violation occurs or continues.
4. Each violation of a monthly average limit for a single pollutant or sampling parameter shall constitute a violation for each day of the month during which the violation occurred, regardless of the number of days on which samples were actually taken. (For example, in a month with 31 days, a violation of the monthly average limit for that month constitutes 31 violations for each pollutant parameter for which the monthly average limit was exceeded during the month.)
5. If a wastewater discharge permit regulates more than one outfall, each outfall shall be considered separately in computing the number of violations as provided by this section.

I. Reimbursement of POTW. If the Permittee violates any provision of this permit or of the Sewer Use Ordinance, or discharges or causes a discharge that produces a deposit or obstruction or otherwise damages or impairs the POTW, damages public or natural resources, or causes or contributes to a violation of any federal, state or local law governing the POTW, the Permittee shall be liable to and shall fully reimburse the city for all expenses, costs, losses or damages (direct or indirect) payable or incurred by the POTW or the city as a result of any such discharge, violation, exceedence or noncompliance. The costs that must be reimbursed to the city shall include, without limitation, all of the following:

1. All costs incurred by the POTW and the city in responding to the violation or discharge, including, expenses for any cleaning, repair or replacement work, and the costs of sampling, monitoring, and treatment, as a result of the discharge, violation, exceedence or noncompliance.
2. All costs to the POTW and the city of monitoring, surveillance, and enforcement in connection with investigating, verifying, and prosecuting any discharge, violation, exceedence or noncompliance.
3. The full amount of any fines, assessments, penalties, and claims, including natural resource damages, levied against the POTW or the city by any governmental agency or third party as a result of a violation of the POTW's NPDES permit (or other applicable law or regulation) that is caused by or contributed to by any discharge, violation, exceedence or noncompliance.
4. The full value of any city staff time (including any required overtime), consultant and engineering fees, and actual attorney fees and defense costs (including the city attorney and any special legal counsel), associated with responding to, investigating, verifying,

and prosecuting any discharge, violation, exceedence or noncompliance or otherwise enforcing the requirements of this chapter.

The city is authorized to correct any violation of this chapter or damage or impairment to the POTW caused by a discharge and to bill the person causing the violation or discharge for the amounts to be reimbursed to the city. The costs reimbursable under this section shall be in addition to fees, amounts or other costs and expenses required to be paid by users under other sections of this permit. In determining the amounts to be reimbursed to the city, the POTW may consider factors such as, but not limited to, those listed in Section 10.15(b) of the Sewer Use Ordinance. The failure by the Permittee to pay any amounts required to be reimbursed to the POTW or the city as provided by this section shall constitute an additional violation of this permit.

- J. Public Nuisance. A violation of this permit, the Sewer Use Ordinance, or of any order, notice or agreement issued or entered into under the Sewer Use Ordinance, is deemed to be a public nuisance and shall be subject to abatement on that basis.

### **PART 13. FEES.**

It is a purpose of this permit and of the Sewer Use Ordinance to provide for the recovery from users of the city's wastewater disposal system of all costs incurred by the city for the administration and implementation by the city of the industrial pretreatment program (IPP) established by the Sewer Use Ordinance. Sewer use fees and charges, including, without limitation, permit application fees, IPP fees, and other sewer related charges shall be established, paid and collected as provided by 7.4(n) and other applicable provisions of the Sewer Use Ordinance.

### **PART 14. ADDITIONAL CONDITIONS.**

- A. Definitions. Except as otherwise specifically defined by this permit, all terms used in this permit shall be defined as provided by the Sewer Use Ordinance.
- B. Most Restrictive Standards or Requirements Control. In all cases, the most stringent or restrictive standard or requirement applicable to the Permittee's discharge shall control, whether established by this permit, the Sewer Use Ordinance, any notice, order, permit, decision or determination promulgated, issued or made by the POTW under the Sewer Use Ordinance, state laws or regulations, including the POTW's NPDES permit, or federal laws or regulations. Further, if state or federal laws or regulations provide for standards and requirements not covered by this permit or the Sewer Use Ordinance that are otherwise applicable to the Permittee's discharge, those standards and requirements shall apply to the Permittee in addition to those required by this permit or the Sewer Use Ordinance, and the most restrictive of those additional standards or requirements shall control and shall be complied with by the Permittee within the time period required by the law or regulation.
- C. Incorporation By Reference. Unless otherwise expressly provided by this permit, specific provisions of the Sewer Use Ordinance referred to in this permit are incorporated by reference in this permit as if set forth fully herein.
- D. Effect of Issuance of Permit. The issuance of this permit does not convey to the Permittee any property or contractual rights or privileges of any kind whatsoever, nor does it authorize any

injury to private or public property or any invasion of personal rights, nor any violation of local, state or federal laws or regulations.

- E. Severability. The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

**PART 15. CERTIFICATION.**

This permit and the following certification shall be signed by an "authorized representative" of the Permittee (as defined by Section 2.1 of the Sewer Use Ordinance) prior to commencing any discharge under this permit:

*I certify that I have read, understand, and agree to be bound by all of the provisions, standards, requirements and conditions of this permit. Further, I agree to fully comply with all applicable requirements of the Sewer Use Ordinance and other applicable state and federal pretreatment laws and regulations.*

Kin

11/5/99  
Date

Robert D. Bradsher  
Signature of Authorized Representative

ROBERT D BRADSHER  
Name (type or print)

WELL MANAGER  
Title



**PLAINWELL INC.**

**Plainwell Inc.**

200 Allegan Street  
Plainwell, Michigan 49080  
616.685.5851 fax 616.685.2708

November 2, 1999

Mr. Bryan Pond  
Superintendent of Wastewater Treatment  
City of Plainwell  
Plainwell, Michigan 49080

Dear Mr. Pond,

As per our discussion, I am submitting a request for the following changes on our discharge permit No. P10051M02.

1. On page 2 the name of our company should be Plainwell Inc.
2. On page 4 the sanitary discharge from Outfall 001-A is very small and I am requesting to exempt this outfall from monitoring and sampling requirements.
3. On page 5 the monitoring and sampling of Phosphorous and pH should be semi-annually.

If you have any questions, please let me know.

Sincerely,

Khaja Naimuddin  
Environmental Superintendent

# **POSITIVE RESULTS SUMMARY REPORT**

**Client:** *Plainwell Paper Company*

**KAR Project No.:** *996016*

**Date Reported:** *12/14/1999*

**Project**

**Description:** *Sampling and analysis of one site.*

**Sample Description:** *"Mill Plant, 24 Hr. Composite, 11/29-30/99, 9:58am-10:55am"*

Test	Positive Result Concentration	Units
BOD	28	mg/L
Copper, total	0.03	mg/L
Nitrogen, ammonia	6.8	mg/L
Phosphorus, total (as P)	0.83	mg/L
Suspended solids, total	9	mg/L
Zinc, total	0.10	mg/L

**Sample Description:** *"Mill Plant, Grab"*

Test	Positive Result Concentration	Units
Cyanide, total	0.008	mg/L

The Positive Results Summary Report is prepared by KAR Laboratories, Inc. and is for informational purposes only. It does not constitute a warranty of any kind, and it is not to be used as a basis for any legal action.

***KAR* Laboratories, Inc.**

(616) 381-9666

**Positive Results Summary Report**

**Page 1 of 1**

# LABORATORY DETAIL REPORT

Client: *Plainwell Paper Company*

KAR Project No. : **996016**

Date Reported : **12/14/99**

Project

Desc. : *Sampling and analysis of one site.*

Sample ID : **"Mill Plant, 24 Hr. Composite, 11/29-30/99, 9:58am-10:55am"**

Sampled By : *SNH of KAR Laboratories*

Date Received : **11/30/1999**

Sample Date : **11/30/1999**

Sample Type : **aqueous**

Sample Time :

KAR Sample No. : **996016-01**

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
<i>Prep. metals</i>	<i>Completed</i>		<i>EPA 30xx.200.x</i>	<i>12/02/99</i>	<i>JPA</i>	
<i>Arsenic, total, by ICP</i>	<i>&lt;0.1</i>	<i>mg/L</i>	<i>EPA 200.7</i>	<i>12/03/99</i>	<i>PML</i>	
<i>Cadmium, total</i>	<i>&lt;0.005</i>	<i>mg/L</i>	<i>EPA 200.7</i>	<i>12/03/99</i>	<i>PML</i>	
<i>Chromium, total</i>	<i>&lt;0.01</i>	<i>mg/L</i>	<i>EPA 200.7</i>	<i>12/03/99</i>	<i>PML</i>	
<i>Copper, total</i>	<i>0.03</i>	<i>mg/L</i>	<i>EPA 200.7</i>	<i>12/03/99</i>	<i>PML</i>	
<i>Lead, total, by ICP</i>	<i>&lt;0.05</i>	<i>mg/L</i>	<i>EPA 200.7</i>	<i>12/03/99</i>	<i>PML</i>	
<i>Molybdenum, total</i>	<i>&lt;0.02</i>	<i>mg/L</i>	<i>EPA 200.7</i>	<i>12/03/99</i>	<i>PML</i>	
<i>Nickel, total</i>	<i>&lt;0.02</i>	<i>mg/L</i>	<i>EPA 200.7</i>	<i>12/03/99</i>	<i>PML</i>	
<i>Selenium, total, by ICP</i>	<i>&lt;0.1</i>	<i>mg/L</i>	<i>EPA 200.7</i>	<i>12/03/99</i>	<i>PML</i>	
<i>Silver, total</i>	<i>&lt;0.005</i>	<i>mg/L</i>	<i>EPA 200.7</i>	<i>12/03/99</i>	<i>PML</i>	
<i>Zinc, total</i>	<i>0.10</i>	<i>mg/L</i>	<i>EPA 200.7</i>	<i>12/03/99</i>	<i>PML</i>	
<i>BOD</i>	<i>28</i>	<i>mg/L</i>	<i>SM(18) 5210 B</i>	<i>12/01/99</i>	<i>AJT</i>	
<i>Nitrogen, ammonia</i>	<i>6.8</i>	<i>mg/L</i>	<i>EPA 350.1</i>	<i>12/01/99</i>	<i>ALK</i>	
<i>Phosphorus, total (as P)</i>	<i>0.83</i>	<i>mg/L</i>	<i>SM(18) 4500-P E</i>	<i>12/10/99</i>	<i>AJT</i>	
<i>Suspended solids, total</i>	<i>9</i>	<i>mg/L</i>	<i>EPA 160.2</i>	<i>12/01/99</i>	<i>MEP</i>	
<i>Prior. Poll. acids</i>	<i>See below</i>		<i>EPA 8270</i>	<i>12/10/99</i>	<i>KTL</i>	
<i>Prep. SV Acid</i>	<i>Completed</i>		<i>EPA 3510</i>	<i>12/07/99</i>	<i>SAS</i>	
<i>2,4,6-Trichlorophenol</i>	<i>&lt;0.005</i>	<i>mg/L</i>	<i>EPA 8270</i>	<i>12/10/99</i>	<i>KTL</i>	
<i>2,4-Dichlorophenol</i>	<i>&lt;0.005</i>	<i>mg/L</i>	<i>EPA 8270</i>	<i>12/10/99</i>	<i>KTL</i>	
<i>2,4-Dimethylphenol</i>	<i>&lt;0.005</i>	<i>mg/L</i>	<i>EPA 8270</i>	<i>12/10/99</i>	<i>KTL</i>	
<i>2,4-Dinitrophenol</i>	<i>&lt;0.02</i>	<i>mg/L</i>	<i>EPA 8270</i>	<i>12/10/99</i>	<i>KTL</i>	
<i>2-Chlorophenol</i>	<i>&lt;0.005</i>	<i>mg/L</i>	<i>EPA 8270</i>	<i>12/10/99</i>	<i>KTL</i>	
<i>2-Methyl-4,6-dinitrophenol</i>	<i>&lt;0.02</i>	<i>mg/L</i>	<i>EPA 8270</i>	<i>12/10/99</i>	<i>KTL</i>	
<i>2-Nitrophenol</i>	<i>&lt;0.005</i>	<i>mg/L</i>	<i>EPA 8270</i>	<i>12/10/99</i>	<i>KTL</i>	
<i>4-Chloro-3-methylphenol</i>	<i>&lt;0.005</i>	<i>mg/L</i>	<i>EPA 8270</i>	<i>12/10/99</i>	<i>KTL</i>	
<i>4-Nitrophenol</i>	<i>&lt;0.02</i>	<i>mg/L</i>	<i>EPA 8270</i>	<i>12/10/99</i>	<i>KTL</i>	
<i>Pentachlorophenol</i>	<i>&lt;0.005</i>	<i>mg/L</i>	<i>EPA 8270</i>	<i>12/10/99</i>	<i>KTL</i>	
<i>Phenol</i>	<i>&lt;0.005</i>	<i>mg/L</i>	<i>EPA 8270</i>	<i>12/10/99</i>	<i>KTL</i>	

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Laboratory Detail Report

Page 1 of 2



## LABORATORY DETAIL REPORT

Client: *Plainwell Paper Company*

KAR Project No. : **996016**

Date Reported : **12/14/99**

**Project**

Desc. : *Sampling and analysis of one site.*

Sample ID : **"Mill Plant, Grab"**

Sampled By : *SNH of KAR Laboratories*

Sample Date : **11/30/1999**

Sample Time : **10:55am**

Date Received : **11/30/1999**

Sample Type : **aqueous**

KAR Sample No. : **996016-02**

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep. Cr6	Completed		EPA 7196A	11/30/99	JMS	
Chromium, hexavalent	<0.005	mg/L	EPA 7196A	11/30/99	JMS	
Cyanide, total	0.008	mg/L	EPA 335.2	12/06/99	JMS	

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Laboratory Detail Report

Page 2 of 2

## POSITIVE RESULTS SUMMARY REPORT

Client: *City of Plainwell WWTP*

KAR Project No.: **995707**

Date Reported: **11/23/1999**

**Project**

**Description:** *Analysis of five aqueous samples.*

Sample Description: **"Flexible Furniture, Composite"**

Test	Positive Result Concentration	Units
BOD	178	mg/L
Copper, total	30	ug/L
Nitrogen, ammonia	0.7	mg/L
Phosphorus, total (as P)	2.24	mg/L
Suspended solids, total	30	mg/L
Zinc, total	100	ug/L

Sample Description: **"Plainwell Paper, Grab"**

Test	Positive Result Concentration	Units
BOD	153	mg/L
Phosphorus, total (as P)	3.87	mg/L
Suspended solids, total	372	mg/L

Sample Description: **"Lawrence, Composite"**

Test	Positive Result Concentration	Units
BOD	203	mg/L
Chromium, total	80	ug/L
Copper, total	130	ug/L
Nickel, total	130	ug/L
Nitrogen, ammonia	2.2	mg/L
Phosphorus, total (as P)	1.34	mg/L
Silver, total	5	ug/L
Suspended solids, total	114	mg/L
Zinc, total	320	ug/L

*This Positive Results Summary Report is intended to provide an overview of the sample set and contains only results above the reporting limit. It should not be used as a substitute for the attached detail report.*

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Positive Results Summary Report

Page 1 of 1

# SANITARY SEWER

## LABORATORY DETAIL REPORT

Client: Plainwell Paper Company

KAR Project No. : 004278

Date Reported : 09/06/00

### Project

Desc. : Sampling and analysis of one site.

Sample ID : **"Mill Plant, Grab"**

Sampled By : SNH of KAR Laboratories

Sample Date : 08/23/2000

Sample Time : 9:52am

Date Received : 08/23/2000

Sample Type : aqueous

KAR Sample No. : 004278-02

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Cr6	Completed		EPA 7196A	08/23/00	DME	
Chromium, hexavalent	0.011	mg/L	EPA 7196A	08/23/00	DME	
Cyanide, total	<0.005	mg/L	EPA 335.2	08/31/00	KLA	

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Laboratory Detail Report

Page 2 of 2

## POSITIVE RESULTS SUMMARY REPORT

Client: *Plainwell Paper Company*

KAR Project No.: **004278**

Date Reported: **09/06/2000**

### Project

Description: *Sampling and analysis of one site.*

Sample Description: **"Mill Plant, 24 Hr. Composite, 8/22-23/00, 9:45am-9:52am"**

Test	Positive Result Concentration	Units
BOD	4	mg/L
Copper, total	0.03	mg/L
Nitrogen, ammonia	3.3	mg/L
Phosphorus, total (as P)	0.59	mg/L
Suspended solids, total	6	mg/L
Zinc, total	0.04	mg/L

Sample Description: **"Mill Plant, Grab"**

Test	Positive Result Concentration	Units
Chromium, hexavalent	0.011	mg/L

This Positive Results Summary Report is prepared by KAR Laboratories, Inc. and contains only results above the reporting limit. It is not to be used for regulatory compliance purposes.

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Positive Results Summary Report

Page 1 of 1

## LABORATORY DETAIL REPORT

Client: *Plainwell Paper Company*

KAR Project No. : **004278**

Date Reported : **09/06/00**

**Project**

Desc. : *Sampling and analysis of one site.*

Sample ID : **"Mill Plant, 24 Hr. Composite, 8/22-23/00, 9:45am-9:52am"**

Sampled By : *SNH of KAR Laboratories*

Date Received : **08/23/2000**

Sample Date : **08/23/2000**

Sample Type : **aqueous**

Sample Time :

KAR Sample No. : **004278-01**

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep. metals	Completed		EPA 30xx.200.x	08/24/00	MTM	
Arsenic, total, by ICP	<0.1	mg/L	EPA 200.7	08/28/00	PML	
Cadmium, total	<0.005	mg/L	EPA 200.7	08/28/00	PML	
Chromium, total	<0.01	mg/L	EPA 200.7	08/28/00	PML	
Copper, total	0.03	mg/L	EPA 200.7	08/28/00	PML	
Lead, total, by ICP	<0.05	mg/L	EPA 200.7	08/28/00	PML	
Molybdenum, total	<0.02	mg/L	EPA 200.7	08/28/00	PML	
Nickel, total	<0.02	mg/L	EPA 200.7	08/28/00	PML	
Selenium, total, by ICP	<0.1	mg/L	EPA 200.7	08/28/00	PML	
Silver, total	<0.005	mg/L	EPA 200.7	08/28/00	PML	
Zinc, total	0.04	mg/L	EPA 200.7	08/28/00	PML	
BOD	4	mg/L	SM(18) 5210 B	08/23/00	MTW	
Nitrogen, ammonia	3.3	mg/L	EPA 350.1	08/25/00	ALK	
Phosphorus, total (as P)	0.59	mg/L	SM(18) 4500-P E	08/31/00	DME	
Suspended solids, total	6	mg/L	EPA 160.2	08/28/00	RDM	
Prior. Poll. acids	See below		EPA 8270	08/31/00	KTL	
Prep. SV Acid	Completed		EPA 3510	08/24/00	SAS	
2,4,6-Trichlorophenol	<5	ug/L	EPA 8270	08/31/00	KTL	
2,4-Dichlorophenol	<5	ug/L	EPA 8270	08/31/00	KTL	
2,4-Dimethylphenol	<5	ug/L	EPA 8270	08/31/00	KTL	
2,4-Dinitrophenol	<20	ug/L	EPA 8270	08/31/00	KTL	
2-Chlorophenol	<5	ug/L	EPA 8270	08/31/00	KTL	
2-Methyl-4,6-dinitrophenol	<20	ug/L	EPA 8270	08/31/00	KTL	
2-Nitrophenol	<5	ug/L	EPA 8270	08/31/00	KTL	
4-Chloro-3-methylphenol	<5	ug/L	EPA 8270	08/31/00	KTL	
4-Nitrophenol	<20	ug/L	EPA 8270	08/31/00	KTL	
Pentachlorophenol	<5	ug/L	EPA 8270	08/31/00	KTL	
Phenol	<5	ug/L	EPA 8270	08/31/00	KTL	

**KAR Laboratories, Inc.**

(616) 381-9666

Laboratory Detail Report

Page 1 of 2

**KAR**Laboratories, Inc.

.....  
**INVOICE**

4425 Manchester Road

Kalamazoo, MI 49001

Phone 616 381-9666

Fax 616 381-9698

City of Plainwell WWTP  
129 Fairlane Street  
Plainwell, MI 49080-1272

Attn: Mr. Bryan D. Pond

Project No.: 005309  
Date Activated: 10/12/00  
Date Reported: 10/19/00  
PO#:

Project Desc.: Analysis of one aqueous sample from Plainwell  
Paper.

Quan Item	Each	Total
1 BOD	30.00	30.00
1 Nitrogen, ammonia	15.00	15.00
1 PH	5.00	5.00
1 Suspended solids, total	15.00	15.00
		=====
	SUBTOTAL	65.00
		-----
		65.00
		0.00
		=====
		65.00

TOTAL DUE \$ =====  
65.00

Please indicate Project No. 005309 on check stub or voucher.

I.D. #38-2476290  
A FINANCE CHARGE OF 1 1/2% PER MONTH (18% PER YEAR)  
WILL BE ADDED TO BALANCES AFTER 11/18/2000.  
ORIGINAL INVOICES ARE SENT TO ACCTS. PAYABLE.

6037

**KAR** Laboratories, Inc.

4425 Manchester Road

Kalamazoo, MI 49001

Phone 616 381-9666

Fax 616 381-9698

www.karlabs.com

**City of Plainwell WWTP**  
**129 Fairlane Street**  
**Plainwell, MI 49080-1272**

**Attn : Mr. Bryan D. Pond**

**KAR Project No. : 005309**

**Date Reported : 10/19/00**

**Date Activated : 10/12/00**

**Date Due : 10/26/00**

**Date Validated : 10/19/00**

**Project**

**Description : Analysis of one aqueous sample from Plainwell Paper.**

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 005309. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,



Michael J. Jaeger  
Director of Laboratories

KAR Laboratories, Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health.

## POSITIVE RESULTS SUMMARY REPORT

Client: *City of Plainwell WWTP*

KAR Project No.: **005309**

Date Reported: **10/19/2000**

**Project**

Description: *Analysis of one aqueous sample from Plainwell Paper.*

Sample Description: **"Plainwell Paper Manhole"**

Test	Positive Result Concentration	Units
BOD	13	mg/L
Nitrogen, ammonia	3.2	mg/L
Suspended solids, total	40	mg/L

*This Positive Results Summary Report provides an overview of the sample set and CONTAINS ONLY RESULTS ABOVE THE REPORTING LIMIT. It should not be used as a substitute for the attached detail report.*

**KAR** Laboratories, Inc.

(616) 381-9686

Positive Results Summary Report

Page 1 of 1



## LABORATORY DETAIL REPORT

Client: *City of Plainwell WWTP*

KAR Project No. : **005309**

Date Reported : **10/19/00**

**Project**

Desc. : *Analysis of one aqueous sample from Plainwell Paper.*

Sample ID : **"Plainwell Paper Manhole"**

Sampled By : *BP of City of Plainwell*

Sample Date : *10/11/2000*

Sample Time :

Date Received : **10/12/2000**

Sample Type : **aqueous**

KAR Sample No. : **005309-01**

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
BOD	13	mg/L	SM(18) 5210 B	10/12/00	MTW	
Nitrogen, ammonia	3.2	mg/L	EPA 350.1	10/18/00	MTW	
PH	7.9	S.U.	EPA 150.1	10/12/00	HES	
Suspended solids, total	40	mg/L	EPA 160.2	10/16/00	RDM	

**KAR Laboratories, Inc.**

(616) 381-9666

Laboratory Detail Report

Page 1 of 1

[illegible]

## Attachment 17

1998 - Present.

SEWER USE ORDINANCE

25.083

<i>Parameter</i>	<i>Instantaneous Maximum Concentration</i>
PCBs (T)	Nondetect. Any discharge of PCBs at or above the detection limit is a specific violation of this ordinance. The detection limit shall be established pursuant to the procedure for determination of the method detection limit ("MDL") as set forth in section 3 (a) of Appendix B of 40 CFR part 136. The MDL study used to determine the MDL shall be made available to the POTW immediately upon request. The detection limit shall not exceed 0.1 µg/l, unless a higher detection limit is approved by the POTW because of sample matrix interference. PCB sampling procedures, preservation and handling, and analytical protocol for compliance monitoring shall be in accordance with EPA method 608. Total PCBs is defined as the sum of any identified Aroclors, including, but not limited to, Aroclors 1242, 1248, 1254 and 1260. In addition, any detected Aroclor-specific measurements shall be reported.
(c)	<i>Pass Through / Interference.</i> Any pollutant, including oxygen demanding pollutants released in a discharge at a flow rate and/or pollutant concentration which will cause pass through or interference at the POTW.
(d)	<i>Color.</i> Color, as from, but not limited to, dyes, inks, and vegetable tanning solution, shall be controlled to prevent light absorbency which would interfere with treatment plant processes or that prevent analytical determinations.

25.083 d

274  
1992 - 998  
the User is subject to other pretreatment standards or requirements.

**Sec. 3. SPECIFIC DISCHARGE PROHIBITIONS.**

Except as specifically provided below or as otherwise expressly limited by this Ordinance, by an Industrial User Permit, or by Special Agreement between the City and a User, a User shall not discharge or cause to be discharged into the POTW any of the following pollutants:

- (a) Any pollutant, including oxygen demanding pollutants released in a discharge at a flow rate and/or pollutant concentration which will cause interference in the POTW.
- (b) BOD-5 in excess of 200 mg/l.
- (c) COD in excess of 450 mg/l.
- (d) Chlorine demand in excess of 15 mg/l.
- (e) Total phosphorus in excess of 11 mg/l, provided that any discharge in excess of 5 mg/l shall be subject to the imposition of a surcharge.
- (f) Color, as from, but not limited to, dyes, inks, and vegetable tanning solution, shall be controlled to prevent light absorbency which would interfere with treatment plant processes or that prevent analytical determinations.
- (g) Pollutants which create a fire or explosion hazard in the POTW, including, but not limited to, waste streams with a closed cup flashpoint of less than 140 degrees Fahrenheit (60 degrees Centigrade) using the test methods specified in 40 CFR 261.21.
- (h) Garbage not properly shredded.
- (i) Grease, oils, wax, fat, whether emulsified or not, in excess of a daily average of 50 mg/l, or other substances which may solidify or become viscous at temperatures between 32 degrees Fahrenheit and 150 degrees Fahrenheit.
- (j) Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through.
- (k) Pollutants in concentrations which exceed those listed below or any other metallic compounds in sufficient quantity to impair the operations of the sewage treatment processes:

Cadmium	0.500 mg/l
Total Chromium	2.000 mg/l
Hexavalent Chromium	0.100 mg/l
Copper	1.000 mg/l
Cyanide	0.100 mg/l
Iron	75.000 mg/l
Lead	0.400 mg/l
Mercury	0.010 mg/l
Nickel	1.000 mg/l
Phenol	1.000 mg/l
Tin	3.000 mg/l
Zinc	3.000 mg/l

- (l) Inert suspended solids (including, but not limited to, Fuller's earth, lime slurries, and lime residues) or dissolved solids (including, but not limited to, sodium chloride and sodium sulfate) in unusual concentrations.
- (m) Insoluble, solid, or viscous substances, (including, but not limited to, ashes, cinders, sand, mud, straw, shavings, metal, glass, tar, feather, plastics, wood, hair, fleshings, and similar substances) in sufficient quantity to impair the operations of the sewage treatment process, to cause obstruction to the flow in the POTW, or otherwise result in interference.
- (n) Any noxious or malodorous gases, liquids or solids (including, but not limited to, hydrogen sulfide, sulphur dioxide, or oxides of nitrogen, and other substances) which either singly or by interaction are capable of creating a public nuisance.
- (o) Pollutants which result in the presence of toxic gases, vapors or fumes within the POTW in a quantity that may cause acute worker health and safety problems.
- (p) Pollutants which will cause corrosive structural damage to the POTW, but in no case discharges with pH less than 6.5 or greater than 9.5.
- (q) Radioactive wastes or isotopes of a half-life or concentration which may exceed limits established by applicable state and federal regulations.
- (r) Suspended solids in excess of 250 mg/l.
- (s) Heat in amounts which will inhibit biological activity in the POTW resulting in interference, but in no case heat in such quantities that the temperature at the POTW treatment plant exceeds 104 degrees Fahrenheit (40 degrees Centigrade). No discharge to the POTW shall have

25.062

**Sec. 12. CAPACITY.**

No connections will be allowed unless there is capacity available in downstream sewers, pump stations, interceptors, force mains and treatment plant, including capacity for BOD and suspended solids in the treatment plant.  
(ord. no. 224 adopt. May 13, 1985)

25.070

**ARTICLE V  
EXTENSIONS TO SYSTEM**

The City may extend sewers as a result of the following initiatives:

- A. After approval of the City Council following a public hearing the City may extend sewers to complete or expand the existing sanitary sewer system to protect the health, safety and welfare of its citizens. Property owners may be assessed in accordance with an adopted special assessment ordinance.
- B. **PETITION.** At the request of citizens, who by petition containing a majority of the property owner's signatures (along both sides of the fronting road) request sewer extension.
- C. A private developer may request the City to extend public sewers to and through the property of the developer by advancing to the City the total costs of the project as estimated and approved by the City Engineer. Applicable facility units shall be paid at the time of connection.

When there are existing or future benefited properties that shall benefit by said sewer, the contractor may be refunded accordingly per contractual agreement.

- D. The City of Plainwell may extend sewers to adjacent municipalities at their request, provided a signed contractual agreement has been made between the City of Plainwell and the governmental unit making the request.  
(ord. no. 224 adopt. May 13, 1985)

25.062 - 25.070

25.080

**ARTICLE VI  
USE OF THE PUBLIC SEWERS**

25.081

**Sec. 1. UNPOLLUTED DISCHARGES TO SANITARY SEWER.**

No person shall discharge or cause to be discharged any storm water, surface water, groundwater, roof runoff, subsurface drainage, uncontaminated cooling water, or unpolluted industrial process waters to any sanitary sewer.  
(ord. no. 224 adopt. May 13, 1985)

25.082

**Sec. 2. UNPOLLUTED DISCHARGES TO STORM SEWERS OR NATURAL OUTLET.**

Storm water and all other unpolluted drainage shall be discharged to such sewers as are specifically designated as combined sewers or storm sewers, or to a natural outlet approved by the appropriate agency. Industrial cooling water or unpolluted process waters may be discharged, upon approval of the appropriate agency, to a storm sewer or natural outlet in accordance with Section 10 of Article VI [25.090].  
(ord. no. 224 adopt. May 13, 1985)

25.083

**Sec. 3. LIMITED DISCHARGES.**

Except as hereinafter provided by specific limits, no person shall discharge any of the following described waters or wastes to any public sewers:

- A. BOD-5 in excess of 200 mg/l.
- B. COD in excess of 450 mg/l.
- C. Chlorine demand in excess of 15 mg/l.
- D. Color, as from but not limited to dyes, inks, and vegetable tanning solution, shall be controlled to prevent light absorbency which would interfere with treatment plant processes or that prevent analytical determinations.
- E. Explosive liquid, solid, or gas, gasoline, benzene, naphtha, fuel oil, or other flammable shall not be admitted.
- F. Garbage not properly shredded (no particle size greater than ½ inch).

25.080 - 25.083

G. Grease, oils, wax, fat, whether emulsified or not, in excess of 50 mg/l or other substances which may solidify or become viscous at temperatures between 32 degrees F. and 150 degrees F. shall not be admitted to the sanitary sewer.

H. Industrial wastes in concentrations above those listed below or any other metallic compounds in sufficient quantity to impair the operations of the sewage treatment processes shall not be allowed to enter sanitary sewers. (Limitations as stated or as set forth by appropriate state agencies to comply with Federal Guidelines for protection of treatment plant and receiving watercourse or as set forth in the NPDES Permit):

Cadmium	0.500 mg/l
Total Chromium	2.000 mg/l
Hexavalent Chromium	0.100 mg/l
Copper	1.000 mg/l
Cyanide	0.100 mg/l
Iron	75.000 mg/l
Lead	0.400 mg/l
Mercury	0.010 mg/l
Nickel	1.000 mg/l
Phenol	1.000 mg/l
Tin	3.000 mg/l
Zinc	3.000 mg/l

I. Inert suspended solids (such as but not limited to Fuller's earth, lime slurries, and lime residues) or dissolved solids (such as but not limited to sodium chloride and sodium sulfate) in unusual concentrations shall not be allowed.

J. Insoluble, solid, or viscous substances such as but not limited to ashes, cinders, sand, mud, straw, shavings, metal, glass, tar, feathers, plastics, wood, hair, fleshings, etc., shall not be admitted to sanitary sewers in sufficient quantity to impair the operations of the sewage treatment process.

K. Noxious or malodorous gas, such as but not limited to hydrogen sulfide, sulphur dioxide, or oxides of nitrogen, and other substances capable of public nuisance shall not be allowed.

L. pH less than 6.5 and greater than 9.5 shall not be allowed.

M. Radioactive wastes or isotopes of such half-life or concentrations which may exceed limits established by applicable state and federal regulations, shall not be allowed.

N. Suspended solids in excess of 250 mg/l.

O. No discharge that has a temperature less than 32 degrees F. or greater than 150 degrees F. or temperature which causes the influent temperature to be raised to 104 degrees F.

P. Any substance which interferes with operation of the POTW Operations of the sludge management program and/or passes through the POTW and results in a violation of the City NPDES permit or applicable effluent or river standards.

Q. No discharges will be allowed that would result in excess foaming during the treatment process. Excess foaming is any foam which, in the opinion of the Superintendent, is a nuisance in the treatment process.

R. The categorical pretreatment standards when finalized for specific industries will become a part of the requirements of this ordinance in accordance with federal regulations. When specific parameter levels established by this ordinance are more restrictive than the Federal requirement, the ordinance level established will apply.  
(ord. no. 224 adopt. May 13, 1985)

#### 25.084

#### Sec. 4. AUTHORITY FOR CONTROL OF DISCHARGES.

If any waters are discharged, or are proposed to be discharged to the public sewers, which waters contain the substances or possess the characteristics enumerated in Section 3 [25.083] of this Article, and which in the judgment of the WWTP Superintendent may have a deleterious effect upon the sewage works, processes, equipment, or receiving waters, or which otherwise create a hazard to life or constitute a public nuisance, the City of Plainwell may:

A. Reject the wastes.

B. Require pretreatment to the level defined as "Normal Domestic Sewage".

C. Require control over the quantities and rates of discharge.

D. Require payment to cover the added cost of handling and treating the wastes not covered by existing taxes, sewer charges, under the provisions of Section 9 [25.089] of this Article.



U.S. ENVIRONMENTAL  
PROTECTION AGENCY

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OFFICE OF REGIONAL  
COUNSEL

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1981-1985

D. The City of Plainwell may extend sewers to adjacent Municipalities at their request, provided a signed contractual Agreement has been made between the City of Plainwell and the governmental unit making the request.

ARTICLE VI. Use of the Public Sewers.

Section 1.

No person shall discharge or cause to be discharged any storm water, surfacewater, groundwater, roof runoff, subsurface drainage, untreated cooling water, or unpolluted industrial process waters to any sanitary sewer.

Section 2.

Storm water and all other unpolluted drainage shall be discharged to such sewers as are specifically designated as combined sewers or storm sewers, or to a natural outlet approved by the appropriate agency. Industrial cooling water or unpolluted process waters may be discharged, upon approval of the appropriate agency, to a storm sewer or natural outlet in accordance with Article IV of Section 10.

Section 3.

Except as hereinafter provided by specific limits, no person shall discharge any of the following described waters or wastes to any public sewers:

- A. BOD<sub>5</sub> in excess of 200 mg/l.
- B. COD in excess of 450 mg/l.
- C. Chlorine demand in excess of 15 mg/l.
- D. Color, as from but not limited to dyes, inks, vegetable tanning solutions, shall be controlled to prevent light absorbancy which would interfere with treatment plant processes or that prevent analytical determinations.
- E. Explosive liquid, solid, or gas, gasoline, benzene, naphtha, fuel oil, or other flammable shall not be admitted.
- F. Garbage not properly shredded (no particle size greater than 1/2 inch).
- G. Grease, oils, wax, fat, whether emulsified or not, in excess of 50 mg/l; or other substances which may solidify or become viscous at temperatures between 32 degrees F. and 150 degrees F. shall not be admitted to the sanitary sewer.

H. Industrial wastes in concentrations above those listed below shall not be allowed to enter sanitary sewers:

Cadmium	0.500 mg/l	Limitations as stated or as
Total Chromium	2.000 mg/l	set forth by appropriate state
Hexavalent Chromium	0.100 mg/l	agencies to comply with
Copper	1.000 mg/l	Federal Guidelines for pro-
Cyanide	0.100 mg/l	tection of treatment plant and
Iron	75.000 mg/l	receiving watercourse or as
Lead	0.400 mg/l	set forth in NPDES Permit.
Mercury	0.010 mg/l	
Nickel	1.000 mg/l	
Phenol	1.000 mg/l	
Tin	3.000 mg/l	
Zinc	3.000 mg/l	

or any other metallic compounds in sufficient quantity to impair the operations of the sewage treatment processes.

- I. Inert suspended solids (such as but not limited to Fullers earth, lime slurries, and lime residues) or of dissolved solids (such as but not limited to sodium chloride and sodium sulfate) in unusual concentrations shall not be allowed.
- J. Insoluble, solid, or viscous substances such as but not limited to ashes, cinders, sand, mud, straw, shavings, metal, glass, tar, feathers, plastics, wood, hair, fleshings, etc., shall not be admitted to sanitary sewers in sufficient quantity to impair the operations of the sewage treatment process.
- K. Noxious or malodorous gas, such as but not limited to hydrogen sulfide, sulphur dioxide, or oxides of nitrogen, and other substances capable of public nuisance shall not be allowed.
- L. pH less than 6.5 and greater than 9.5 shall not be allowed.
- M. Radioactive wastes or isotopes of such half-life or concentrations which may exceed limits established by applicable state and federal regulations, shall not be allowed.
- N. Suspended solids in excess of 250 mg/l.
- O. Temperature of wastes less than 32 degrees F. and greater than 150 degrees F. shall not be allowed.
- P. Waters or wastes containing substances which are not amenable to treatment or reduction by the sewage treatment processes employed or are amenable to treatment to only such degree that the sewage treatment plant effluent cannot meet the requirements of other agencies having jurisdiction over discharge to the receiving waters.
- Q. No discharges will be allowed that would result in excess foaming during the treatment process. Excess foaming is any foam which, in the opinion of the Superintendent, is a nuisance in the treatment process.

#### Section 4.

If any waters are discharged, or are proposed to be discharged to the

ic sewers, which waters contain the substances or possess the characteristics  
erated in Section 3 of this Article, and which in the judgment of the

# Attachment 18

MICHIGAN WATER RESOURCES COMMISSION  
AUTHORIZATION TO DISCHARGE UNDER THE  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Water Pollution Control Act, as amended, (33 U.S.C. 1251 et seq; the "Act"), Michigan Act 98, Public Acts of 1913, as amended, being sections 325.201 through 325.214 of the Compiled Laws of Michigan, and the Michigan Water Resources Commission Act, as amended, (Act 245, Public Acts of 1929, as amended, being sections 323.1 through 323.13 of the Compiled Laws of Michigan, the "Michigan Act"),

the City of Plainwell

is authorized to discharge from a facility located at 129 Fairlane Street

designated as the Plainwell WWTP

to receiving water named the Kalamazoo River

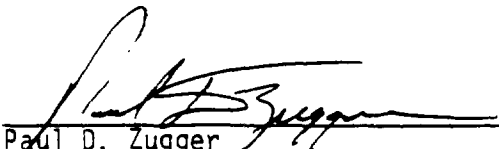
in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts I and II hereof.

This permit modification takes effect immediately upon the date of modification. Any person who feels aggrieved by the modifications herein may file a sworn petition with the Commission setting forth the conditions of the permit which are being challenged and specifying the grounds for the challenge. The Commission may reject any petition filed more than 60 days after modification as being untimely. Upon granting of a contested case to the applicant, the Commission shall review the permit to determine which contested terms shall be stayed until the Commission takes its final action. All other conditions of the permit remain in full effect. If the contested condition is a modification of a previous permit condition and the Commission determines the contested condition shall be stayed, then such previous condition remains in effect until the Commission takes final action. During the course of any administrative proceeding brought by a person other than the applicant, the conditions of this permit will remain in effect, unless the Commission determines otherwise.

This permit and the authorization to discharge shall expire at midnight, September 30, 1989. In order to receive authorization to discharge beyond the date of expiration, the permittee shall submit such information and forms as are required by the Michigan Water Resources Commission no later than 180 days prior to the date of expiration.

This permit is based on an application dated September 9, 1982, and shall supersede any and all Orders of Determination, Stipulations, Final Orders of Determination, or NPDES Permits previously adopted by the Michigan Water Resources Commission concerning the described discharge(s).

Issued this 25th day of September 1984, and modified this 21st day of April 1986, by the Michigan Water Resources Commission.

  
Paul D. Zugger  
Executive Secretary



## PART I, Section A-1

- b. All samples shall be 24 hour composite samples taken prior to disinfection except Fecal Coliform Bacteria, Total Residual Chlorine, Dissolved Oxygen, and pH which shall be grab samples of the effluent.
- c. The total daily effluent flow shall be measured daily.
- d. During the period that Coliform Bacteria Limitations are in effect, the permittee shall provide adequate control and facilities to ensure continuous disinfection.
- e. The carbonaceous BOD<sub>5</sub> limitation shall be considered as BOD<sub>5</sub> excluding the oxygen demand attributable to nitrification.
- f. Variance Opportunity - Opportunity exists under the Provision of Rules of the Michigan Water Resources Commission (R 323.1082) to demonstrate to the Commission that the concentration of a material potentially toxic to fish or fish food organisms greater than the 96 hour TL<sub>m</sub> (0.024 mg/l Total Residual Chlorine) is acceptable. The demonstration, if undertaken, shall conclusively demonstrate to the satisfaction of the Commission that such higher concentration will not cause an irreversible response which results in deleterious effects to populations of important aquatic life and wildlife, and interference with passage of fish and fish food organisms results only to the extent that impacts on their immediate and future populations are negligible or not measurable. Such a demonstration, if undertaken, shall be submitted to the Chief of the Surface Water Quality Division on or before September 30, 1985.
- g. In addition to the BOD and Suspended Solids limitations above, the 30-day average effluent BOD and Suspended Solids concentrations shall not exceed 15 percent of the average influent concentrations for approximately the same period. This applies for the time period of October 1 through April 30.

## PERMIT CONDITIONS

## PART I

## B. INDUSTRIAL WASTE CONTROL PROGRAM

1. In accordance with its pretreatment program approved on June 27, 1985, the permittee shall assure that pollutant discharges from nondomestic sources do not:
  - a. Cause, in whole or in part, the permittee's failure to comply with the effluent limitations found in Part I, Section A of this permit;
  - b. Restrict, in whole or in part, the permittee's approved Program for Effective Residuals Management (PERM) required by Part I, Section C of this permit;
  - c. Cause, in whole or in part, operational problems at the treatment facility or in its collection system;
  - d. Exceed local limits established in accordance with the approved pretreatment program; or
  - e. Exceed Federal Pretreatment Standards as identified in the Federal Pretreatment Regulations (40 CFR 403.5, 1984) and in regulations pursuant to Section 307(b) and (c) of the Act.

The Department of Natural Resources retains the right to require modifications in the approved pretreatment program which are necessary to maintain the above program capabilities.

2. The permittee shall not change or modify its approved pretreatment program without prior approval of the Director.
3. The permittee shall develop and maintain for a minimum of three years all records and information resulting from monitoring and enforcement activities necessary to determine nondomestic user compliance with the pretreatment standards, local limits, and conditions of the approved program.
4. The permittee is required to submit to Chief of the Surface Water Quality Division, beginning on August 1, 1985, and annually thereafter on August 1, a summary report on the status of program implementation and enforcement activities. This report shall contain:
  - a. A listing of nondomestic users whose discharge is regulated by the conditions of the approved pretreatment program, to include:
    - (1) Additions or deletions to the nondomestic user survey, including users with significantly increased discharges;
    - (2) Additions or deletions to the list of toxic chemicals that potentially could be discharged to the sewer;
    - (3) The names of users with permits or contracts for discharge;
    - (4) The names of users audited for compliance during the reporting period, and the status of compliance for each; and



## PART I, Section B-4a

(5) The names of users which were in significant violation of applicable pretreatment standards or other pretreatment requirements during the reporting period, and proof of publication pursuant to 40 CFR 403.8(f)(2)(vii).

b. A summary of the enforcement actions taken and status of compliance by non-domestic users to include:

(1) Names of nondomestic users not in compliance with categorical standards and/or local pretreatment discharge limitations, and

(2) Status of enforcement actions taken to return these facilities to compliance.

c. A summary of any changes proposed or made to the approved program including changes in legal authority; any procedures which were previously approved by the Department of Natural Resources, including those used to establish local limits; service areas; monitoring programs; staffing; or funding.

5. The permittee shall implement the approved pretreatment program in accordance with the following schedule:

a. The permittee shall cause all nondomestic users to be brought into compliance with the permittee's pretreatment regulations according to the following schedule (this does not exempt industrial users from Federal Categorical Discharge Standards Deadline):

(1) On or before July 31, 1985, submit a complete list of nondomestic users that are not currently meeting the permittee's local limits.

(2) On or before September 30, 1985, verify that all nondomestic users identified in 5.a.1. are under an enforceable schedule to meet the permittee's local limits.

(3) On or before September 30, 1985, verify that all nondomestic users identified in 5.a.1. are in compliance with the permittee's local limits.

b. The permittee shall perform a short-term monitoring program on the wastewater treatment plant effluent for the parameters and using the methodology listed, according to the following schedule:

(1) On or before April 15, 1986, begin the sampling program.

(2) On or before June 1, 1986, complete the monitoring program and submit the results obtained.

<u>Parameter</u>	<u>Monitoring Method</u>	<u>Detection Limit</u>	<u>Frequency and Duration</u>	<u>Sample Type</u>
Mercury	EPA 245.1	0.5 ug/l	1 x weekly for six weeks	24 hour composite

(3) Based on the results, this permit may be modified in accordance with Part II, Section D-4 by the Water Resources Commission to incorporate final effluent limitations and/or monitoring requirements as appropriate.

## PERMIT CONDITIONS

## PART I

## C. PROGRAM FOR EFFECTIVE RESIDUALS MANAGEMENT

In addition to the requirements in Part II, Section C-8, herein, the permittee shall provide for the effective management and/or disposal of residuals, i.e., solids, sludges, ash, grit and other substances removed from or resulting from treatment of the wastewater. Residuals disposal shall be accomplished in such manner and at such locations that the disposal practices shall not result in unlawful pollution of the air, surface waters or ground waters of the state nor create nuisance conditions. Such management and/or disposal program shall be set forth in a "Program for Effective Residuals Management" prepared by the permittee.

The program shall include:

- 1.) a management plan (treatment, transportation, storage, disposal, contingency plans);
- 2.) an inventory of residuals production, storage, and disposal for a period of at least one year;
- 3.) an analysis of the residuals;
- 4.) a monitoring program;
- 5.) if land application is proposed, site maps, soil analyses, application rates, proposed vegetation, and other pertinent information; and
- 6.) if ground water degradation potential exists, a hydrogeologic study.

A program has previously been submitted to and approved by the Chief of the Surface Water Quality Division. The permittee shall certify that current and future residuals management practices will be in accordance with the approved program or shall submit proposed modifications to the approved program. The program certification or proposed modifications shall be submitted to and receive the approval of the Chief of the Surface Water Quality Division on or before January 31, 1985.

Disposal of residuals resulting from the treatment of wastewater shall be in accordance with the previously approved program until proposed modifications are approved. If at any time the permittee desires to make any substantial changes in the approved program the proposed changes shall be submitted to and approved by the Chief of the Surface Water Quality Division prior to implementation. Substantial changes shall include, but not be limited to: a change in disposal method or site; a change in treatment method; a change in storage method or site; a change in monitoring parameters or monitoring frequency; an increase in application rate; or a change in residuals quantity or characteristics. Any residual disposal inconsistent with the approved program shall be considered a violation of this permit.

PART I

D. SCHEDULE OF COMPLIANCE

1. Alternative Power Sources

- a. The permittee shall submit an Alternative Power Source Report to the Chief of the Surface Water Quality Division for approval documenting compliance with the requirements of Part II, Section C-9 (Power Failures) of this permit on or before December 31, 1984.

The report shall (1) identify all essential treatment equipment and pumping stations utilized for transportation and treatment of wastes collected within the service area of the facility governed by this permit, and (2) document the alternative power source, or other means of providing continuity of service during periods of power failures, for each essential item identified.

- b. If notified by the Surface Water Quality Division that the Alternative Power Source Report submitted by the permittee indicates a lack of adequate alternative power at the permittee's facilities, then the permittee shall submit to the Chief of the Surface Water Quality Division an approvable plan and schedule for providing adequate alternative power within three (3) months after being so notified. The approved plan and schedule shall become an enforceable part of this permit.

PERMIT CONDITIONS

PART I

D. SCHEDULE OF COMPLIANCE

2. Written Report Required

Within 14 days of every program requirement date specified in this permit the permittee shall submit a written report to the Chief of the Surface Water Quality Division stating whether or not the particular task was accomplished. If the task was not accomplished, the report shall also include: an explanation of the failure to accomplish the task, actions taken by the permittee to correct the situations, and an estimate of when the task will be accomplished.

If the task requires submission of a written report and the task was accomplished, a separate written report is not required.

## PERMIT CONDITIONS

## PART II

## A. REPORTING, DEFINITIONS, AND MONITORING

## 1. Reporting

The permittee shall effectively monitor the operation of all processes comprising the treatment and control facilities. Monitoring data required by this permit and other data required by the Surface Water Quality Division shall be tabulated and summarized on a calendar month basis. Monthly reports, on forms or format supplied by the Surface Water Quality Division, shall be mailed to the address below, postmarked no later than the tenth (10th) of the first month following the report period.

Department of Natural Resources  
Data Center  
P.O. Box 30028  
Lansing, Michigan 48909

## 2. Definitions

## a. 30-Day Average Concentration

The 30-day average concentration other than for fecal or total coliform bacteria, is defined as the sum of the concentrations of the individual samples divided by the number of samples taken during a calendar month. The 30-day average concentration for fecal or total coliform bacteria is the geometric mean of the samples collected in a calendar month.

## b. 7-Day Average Concentration

The 7-day average concentration other than for fecal or total coliform bacteria, is defined as the sum of the concentrations of the individual samples divided by the number of samples taken during any 7 consecutive day period of a calendar month. The 7-day average concentration for fecal or total coliform bacteria is the geometric mean of the samples collected in any 7 consecutive day period of a calendar month.

## c. 30-Day Average Load

The 30-day average load is defined as the sum of the weights of pollutants discharged on sampling days divided by the number of sampling days during a calendar month.

## d. 7-Day Average Load

The 7-day average load is defined as the sum of the weights of pollutants discharged on sampling days divided by the number of sampling days during any 7 consecutive days in a calendar month.

## PART II, Section A-2

## e. Maximum Concentration

The maximum concentration limitation is defined as the permissible maximum concentration of a pollutant in any individual sample.

## f. Maximum Load

The maximum load limitation is defined as the permissible maximum weight of a pollutant discharged in any single day.

## g. 24-Hour Composite Sample

24-hour composite sample is defined as a flow proportioned composite sample consisting of hourly or more frequent portions.

## h. Grab Sample

Grab sample is defined as a single sample of wastewater taken at neither set time nor flow.

## i. Non-Domestic User

A Non-Domestic User is defined as any discharger to the permittee's treatment works that discharges wastes other than or in addition to water-carried wastes from toilet, kitchen, laundry, bathing or other facilities used for household purposes.

## j. Major User

A Major User is defined as a Non-Domestic User that:

- (1) discharges more than 10,000 gallons per average working day to the permittee's treatment works;
  - (2) discharges any toxic or hazardous materials such as, but not limited to, those listed in Attachment B, or
  - (3) discharges any substance that may cause interference with the operation of the treatment works, and
- is considered to be of significance to the overall treatment and disposal processes.

## k. Interference

Interference is defined as any inhibition or disruption of the permittee's sewer system, treatment process, operations, or residuals management program, which may contribute to a violation of the NPDES permit.

## l. National Pretreatment Standards

National Pretreatment Standards are defined as the regulations promulgated by or to be promulgated by the Federal Environmental Protection Agency pursuant to Section 307(b) and (c) of the Act. The standards establish nationwide limits for specific industrial categories for discharge to Publicly Owned Treatment Works.

## PART II, Section A-2

## m. Pretreatment

Pretreatment is defined as reducing the amount of pollutants, eliminating pollutants, or altering the nature of pollutant properties to a less harmful state prior to discharge into a public sewer. The reduction or alteration can be by physical, chemical, or biological processes, process changes, or by other means. Dilution is not considered pretreatment unless expressly authorized by an applicable National Pretreatment Standard for a particular industrial category.

## n. Water Quality Standards

The Water Quality Standards are defined as Part 4 of the General Rules of the Michigan Water Resources Commission promulgated by authority of Sections 2 and 5 of the Michigan Act.

## 3. Monitoring

- a. The analytical test procedures used shall conform to the rules and regulations promulgated under Section 304(h) of the "Act" (Title 40, Chapter 1, Subchapter D., Part 136-Guidelines Establishing Test Procedures for the Analysis of Pollutants). Copies are available from the Surface Water Quality Division on request. For parameters not covered by the regulations, test procedures shall be approved by the Surface Water Quality Division.
- b. The permittee shall periodically calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals to ensure accuracy of measurements.
- c. Fecal or Total Coliform analyses, at facilities using chlorine for disinfection, shall be performed on "grab" samples collected at varying times during an operating day. Information derived therefrom shall be correlated with chlorine residual levels, flow rate, and loading variations for the purpose of minimizing chlorine use, while maintaining compliance with the effluent limitations.

## 4. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

- a. The exact place, date, and time of sampling;
- b. The dates the analyses were performed;
- c. The person(s) who performed the analyses;
- d. The analytical techniques or methods used; and
- e. The results of all required analyses.

## PART II, Section A

## 5. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Monthly Operating Report.

## 6. Records Retention

All records and information resulting from the monitoring activities required by this permit, including all records of analyses performed and calibration and maintenance of instrumentation and recordings from continuous monitoring instrumentation, shall be retained for a minimum of three (3) years or longer if requested by the Surface Water Quality Division or the Regional Administrator.

## B. PERMIT PROGRAM ADMINISTRATION

## 1. Michigan Water Resources Commission

The Michigan Water Resources Commission has been designated the authority to administer the NPDES permit program in the State of Michigan.

## 2. Regional Administrator

Where used within this permit, the term Regional Administrator shall mean the Administrator, Region V, U.S. Environmental Protection Agency, 230 South Dearborn Street, Chicago, Illinois, 60604.

## 3. N.P.D.E.S.

NPDES is defined as the National Pollutant Discharge Elimination System pursuant to Section 402 of the Federal Water Pollution Control Act as amended (33 U.S.C. 1251 et seq, P.L. 92-500, 95-217).

## 4. Surface Water Quality Division

The Surface Water Quality Division of the Michigan Department of Natural Resources provides the staff for the administration of the NPDES program by the Michigan Water Resources Commission. Reports, notifications, and questions regarding this permit or the NPDES program should be addressed to the appropriate district office of the Surface Water Quality Division.

## C. MANAGEMENT REQUIREMENTS

## 1. Change in Discharge

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than, or at a level in excess of that authorized, shall constitute a violation of the permit. Any anticipated significant loading increase, facility expansions, or process modifications which will result in new, different, or increased discharges of pollutants must be reported by submission of a new NPDES application or, if such changes will not violate the effluent limitations specified in this permit, by notice to the Surface Water Quality Division of such changes. Following such notice, the permit may be modified to specify and limit any pollutants not previously limited.



## PART II, Section C

## 2. Containment Facilities

The permittee shall provide facilities approved under Act 98, Public Acts of 1913 as amended, and in accordance with the requirements of the Michigan Water Resources Commission Rules, Part 5, for containment of any accidental losses of concentrated solutions, acids, alkalies, salts, oils, or other polluting materials.

## 3. Operator Certification

The permittee shall have the waste treatment facilities under the direct supervision of an operator certified by the Michigan Department of Natural Resources as required by Regulations Governing the Certification of Sewage Treatment Works Operators in accordance with Act 98, Public Acts of 1913, as amended (R 299.2911 - R 299.2927).

## 4. Non-compliance Notification

If, for any reason, the permittee does not comply with or will be unable to comply with any condition specified in this permit, the permittee shall provide the Surface Water Quality Division and the Regional Administrator with the following information, in writing, at the time of submittal of the monthly operating data:

- a. A description of the circumstances and cause of non-compliance; and
- b. The period of non-compliance, including exact dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the non-compliance.

## 5. Facilities Operation

All waste collection, control, treatment and disposal facilities shall be operated in a manner consistent with the following:

- a. At all times, all facilities shall be operated and maintained in an efficient and responsible manner.
- b. The permittee shall provide an adequate operating staff which is qualified to carry out the operation, maintenance and testing functions required to ensure compliance with this permit.
- c. Maintenance of treatment facilities shall not result in degradation of effluent quality.
- d. Under no circumstances shall the permittee allow introduction of the following wastes into the waste treatment system:
  - (1) Wastes which create or can create a fire or explosion hazard- defined as being greater than 20% of the lower explosive limit (LEL) for the substance.
  - (2) Wastes which create or cause corrosive structural damage.
  - (3) Wastes with pH lower than 5.0 or greater than 11.0.

PART II, Section C-5d.

- (4) Solid or viscous substances in amounts which cause obstructions to the flow in collecting or intercepting sewers or interference with the proper operation of the treatment works.
- (5) Any pollutant, including oxygen demanding substances released in a discharge of such volume or strength which causes interference in the treatment works.
- (6) Heat in such amounts that biological activity is inhibited at the treatment works resulting in interference. The discharge of heat must be regulated so that the temperature at the treatment works influent does not exceed 40° C (104° F).

6. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to waters of the state resulting from non-compliance with this permit. Such steps may include accelerated or additional monitoring as necessary to determine the nature and impact of the non-compliance.

7. By-passing or Accidental Losses

Any diversion from or by-pass of facilities necessary to maintain compliance with the terms and conditions of this permit is prohibited, except (i) where unavoidable to prevent loss of life, severe property damage, extended duration process upset, or (ii) where excessive flow would damage any facilities necessary for compliance with the effluent limitations of this permit. The permittee shall promptly notify the Surface Water Quality Division of any such by-pass, or any accidental loss of pollution materials by telephone at 1-800-292-4706. Such notice shall be supplemented by a written report within five (5) days detailing the cause of such diversion, by-pass, or loss, and the corrective actions taken to minimize adverse impacts and eliminate the cause for future diversion, by-pass or loss.

8. Waste Treatment Residues

Solids, sludges, ashes, filter backwash, scrubber water, or other pollutants resulting from the treatment or control of wastewaters shall be disposed in an environmentally compatible manner. Such disposal shall not result in degradation of any surface waters or groundwaters of the state. Additional monitoring may be required to confirm the adequacy of disposal.

9. Power Failures

In order to maintain compliance with the effluent limitations and prevent unauthorized discharges the permittee shall:

- a. Provide alternative power or equipment sufficient to operate essential facilities utilized by permittee to comply with this permit in accordance with Design Criteria for Mechanical, Electric, and Fluid System and Component Reliability published by the Federal Environmental Protection Agency (EPA - 430-99-74-001), or
- b. Upon the reduction, loss, or failure of one or more of the primary sources of power to facilities utilized by the permittee to maintain compliance with this permit, the permittee shall halt, reduce or otherwise control all discharges in order to maintain compliance with the effluent limitations and conditions of this permit.

## PART II, Section D

## D. RESPONSIBILITIES

## 1. Right of Entry

The permittee shall allow the Michigan Water Resources Commission, the Regional Administrator and/or their authorized representatives, upon presentation of credentials:

- a. To enter upon the permittee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this permit; and
- b. At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and to sample any discharge of pollutants.

## 2. Transfer of Ownership or Control

In the event of any change in control or ownership of facilities from which the authorized discharge emanates, the permittee shall notify the succeeding owner or controller of the existence of this permit by letter, a copy of which shall be forwarded to the Surface Water Quality Division and the Regional Administrator 30 days prior to the actual transfer of control or ownership.

## 3. Availability of Reports

All reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Surface Water Quality Division and the Regional Administrator. As required by the Act, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the Act, Sections 7 and 10 of the Michigan Act, and Sections 8 and 13 of Act 98, Public Acts of 1913, as amended.

## 4. Permit Modification

After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:

- a. Violation of any terms or conditions of this permit;
- b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts;
- c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge; or
- d. The establishment of a toxic effluent standard or prohibition under Section 307(a) of the Act more stringent than any limitation in this permit.

## 5. Civil and Criminal Liability

Except as provided in permit conditions on "By-passing" (Part II, C-7), nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for non-compliance.

PART II, Section D

6. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor infringement of Federal, State or local laws or regulations.

7. Facility Construction

This permit does not authorize or approve the construction or modification of any physical structures or facilities. Approval for such construction must be by permit issued under Act 98, Public Acts of 1913, as amended.

8. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

MIXING ZONE

Facility: City of Plainwell Wastewater Treatment Plant

<u>Outfall Number</u>	<u>Receiving Water</u>	<u>Discharge Location</u>
001	Kalamazoo River	Section 30, T1N, R11W

For toxic pollutants, the volume of receiving water used in assuring that effluent limitations are sufficiently stringent to meet Water Quality Standards is 25% of the design flow of the receiving stream.

For other pollutants, the volume of receiving water used in assuring that effluent limitations are sufficiently stringent to meet Water Quality Standards is the design flow of the receiving stream.

STATE OF MICHIGAN



NATURAL RESOURCES COMMISSION

MARLENE J. FLUHARTY  
GORDON E. GUYER  
O. STEWART MYERS  
RAYMOND POUPORE

JOHN ENGLER, Governor

DEPARTMENT OF NATURAL RESOURCES

STEVENS T. MASON BUILDING  
P.O. BOX 30028  
LANSING, MI 48909

~~XXXXXXXXXXXXXXXXXXXX~~  
Roland Harnes, Director

October 15, 1991

CERTIFIED MAIL

Ms. Ruth King, Clerk  
City of Plainwell  
141 North Main Street  
Plainwell, Michigan 49080

Current Permit  
as of  
1-1-92

Dear Ms. King:

SUBJECT: NPDES Permit No. MI0020494  
Wastewater Treatment Plant

Your National Pollutant Discharge Elimination System (NPDES) Permit has been processed in accordance with appropriate state and federal regulations. It contains the requirements necessary for you to comply with state and federal water pollution control laws.

REVIEW THE PERMIT EFFLUENT LIMITS AND COMPLIANCE SCHEDULES CAREFULLY. These are subject to the criminal and civil enforcement provisions of both state and federal law. Permit violations are audited by the Michigan Department of Natural Resources and the United States Environmental Protection Agency and may appear in a published quarterly noncompliance report made available to agencies and the public.

Your monitoring and reporting responsibilities must be complied with in accordance with this permit. If applicable, Discharge Monitoring Report forms will be transmitted to you in the near future. These reports are to be submitted monthly or otherwise as required by your NPDES permit.

Any reports, notifications, or questions regarding the attached permit or NPDES program should be directed to the following address:

Fred Morley, District Supervisor  
621 North Tenth Street  
P.O. Box 355  
Plainwell, Michigan 49080  
Telephone: (616) 685-9886

MICHIGAN WATER RESOURCES COMMISSION  
AUTHORIZATION TO DISCHARGE UNDER THE  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Water Pollution Control Act, as amended, (33 U.S.C. 1251 et seq; the "Act"), Michigan Act 98, Public Acts of 1913, as amended, being sections 325.201 through 325.214 of the Compiled Laws of Michigan, and the Michigan Water Resources Commission Act, as amended, (Act 245, Public Acts of 1929, as amended, being sections 323.1 through 323.13 of the Compiled Laws of Michigan, the "Michigan Act"),

City of Plainwell  
141 North Main Street  
Plainwell, Michigan 49080

is authorized to discharge from a facility located at

129 Fairlane  
Plainwell, Michigan 49080

designated as the Plainwell WWTP

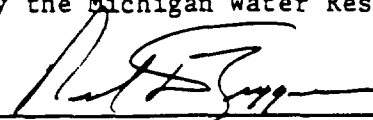
to the receiving water named the Kalamazoo River in accordance with effluent limitations, monitoring requirements and other conditions set forth in this permit.

This permit takes effect on January 1, 1992. Any person who feels aggrieved by this permit may file a sworn petition with the Executive Secretary of the Michigan Water Resources Commission, setting forth the conditions of the permit which are being challenged and specifying the grounds for the challenge. The Commission may reject any petition filed more than 60 days after issuance as being untimely. Upon granting of a contested case to the applicant, the Commission shall review the permit to determine which contested terms shall be stayed until the Commission takes its final action. If a contested condition is a requirement placed on wastewater covered by a new or increased discharge authorization, such increased discharge authorization shall be stayed until the Commission takes final action. All other conditions of the permit remain in full effect. If the contested condition is a modification of a previous permit condition and the Commission determines the contested condition shall be stayed, then such previous condition remains in effect until the Commission takes final action. During the course of any administrative proceeding brought by a person other than the applicant, the conditions of this permit will remain in effect, unless the Commission determines otherwise.

This permit and the authorization to discharge shall expire at midnight October 1, 1995. In order to receive authorization to discharge beyond the date of expiration, the permittee shall submit such information and forms as are required by the Michigan Water Resources Commission to the Permits Section of the Surface Water Quality Division no later than 180 days prior to the date of expiration.

This permit is based on an application submitted on December 22, 1988. On its effective date this permit shall supersede NPDES Permit No. MI0020494, expiring September 30, 1989.

Issued this 19th day of September, 1991, by the Michigan Water Resources Commission.

  
\_\_\_\_\_  
Paul D. Zugger  
Executive Secretary

## PART I

## Section A.1. (continued)

b. Sampling Frequency - The effluent characteristics shall be measured at the following frequency: CBOD<sub>5</sub>, Total Suspended Solids, Total Phosphorus, Dissolved Oxygen, Fecal Coliform Bacteria and pH shall be sampled five (5) times weekly. Total Residual Chlorine shall be sampled daily during chlorination. Ammonia shall be sampled weekly. Total Copper shall be sampled quarterly in March, June, September, and December.

c. Sampling Type and Location

(1) The sampling for CBOD<sub>5</sub>, Total Suspended Solids, Ammonia Nitrogen, Total Copper and Total Phosphorus shall be 24-hour composites taken prior to disinfection. The sampling for Dissolved Oxygen, Fecal Coliform Bacteria, Total Residual Chlorine and pH shall be grab samples taken of the effluent.

(2) Compliance with the Total Residual Chlorine limit shall be determined on the basis of one or more grab samples. If more than one sample per day is taken, the additional samples shall be collected in near equal intervals over at least 8 hours. The samples shall be analyzed immediately upon collection and the average reported as the daily maximum. The level of detection shall be determined for the analytical method used by following the procedures prescribed in 40 CFR 136 Appendix B.

d. During the period that Fecal Coliform Bacteria limitations are in effect, the permittee shall provide adequate control and facilities to ensure continuous disinfection.

e. In addition to the CBOD<sub>5</sub> and Total Suspended Solids limitations above, the 30-day average effluent CBOD<sub>5</sub> and Total Suspended Solids concentrations shall not exceed 15 percent of the average influent concentrations for approximately the same period. This requirement is in effect from October 1 through April 30.

f. Demonstration Opportunity Regarding Total Residual Chlorine

(1) Final Acute Value - The permittee may demonstrate to the Michigan Water Resources Commission that a total residual chlorine limitation greater than the final acute value of 0.036 mg/l is acceptable under the Water Quality Standards. Such demonstration may establish that: a) fish cannot physically inhabit the zone where concentrations of total residual chlorine are greater than 0.036 mg/l, b) toxicity tests, using species and/or water more representative of the discharge point, result in a higher final acute value, c) there is extremely high and immediate dilution, or d) other rationale warrants a less restrictive limitation for total residual chlorine.

(2) Compliance Deadline - The permittee may demonstrate to the Michigan Water Resources Commission that it is necessary and appropriate to postpone the effective date of the total residual chlorine limitation considering the present efficiency of disinfection, age of chlorination equipment and the economic and technical feasibility of compliance.



## PART I

## B. INDUSTRIAL WASTE CONTROL PROGRAM

1. The permittee shall implement the pretreatment program approved on June 27, 1985, and modifications approved February 8, 1991, and January 17, 1992, which are incorporated as enforceable requirements of this permit.
2. The permittee shall control pollutant discharges from nondomestic sources consistent with 40 CFR 403 and shall prohibit discharges that:
  - a. Cause, in whole or in part, the permittee's failure to comply with the effluent limitations required in Part I.A. of this permit;
  - b. Restrict, in whole or in part, the permittee's approved Program for Effective Residuals Management (PERM) required in Part I.C. of this permit;
  - c. Cause, in whole or in part, operational problems at the treatment facility or in its collection system;
  - d. Exceed local limits established in accordance with the approved pretreatment program; or
  - e. Exceed National Pretreatment Standards: Prohibited Discharges, as identified in the Federal Pretreatment Regulations (40 CFR 403.5) and in regulations pursuant to Section 307(b) and (c) of the Act.
3. The Department of Natural Resources may require modifications in the approved pretreatment program which are necessary to maintain the above program capabilities.
4. The permittee shall not change or modify its approved pretreatment program except in accordance with 40 CFR 403.18, as amended October 17, 1988 (53 CFR 40615).
5. The permittee shall develop and maintain for a minimum of three years all records and information resulting from monitoring and enforcement activities necessary to determine nondomestic user compliance with the pretreatment standards, local limits, and conditions of the approved program.
6. The permittee shall annually review the adequacy of the approved pretreatment program with respect to the regulations at 40 CFR 403 and the ability to achieve the objectives stated in Paragraph 2 (above) currently and projected into the foreseeable future. Based upon the review, the permittee shall propose any necessary changes or modifications to the approved pretreatment program for approval by the Director.
7. The permittee shall submit to the Plainwell District Supervisor of the Surface Water Quality Division, beginning on August 1, 1985, and annually thereafter, a summary report on the status of program implementation and enforcement activities. The Annual Pretreatment Summary Report shall contain:

(continued)

## PART I

## B. INDUSTRIAL WASTE CONTROL PROGRAM

1. The permittee shall implement the pretreatment program approved on June 27, 1985, and modifications approved on February 8, 1991, which are incorporated as enforceable requirements of this permit.
2. The permittee shall control pollutant discharges from nondomestic sources consistent with 40 CFR 403 and shall prohibit discharges that:
  - a. Cause, in whole or in part, the permittee's failure to comply with the effluent limitations required in Part I.A. of this permit;
  - b. Restrict, in whole or in part, the permittee's approved Program for Effective Residuals Management (PERM) required in Part I.C. of this permit;
  - c. Cause, in whole or in part, operational problems at the treatment facility or in its collection system;
  - d. Exceed local limits established in accordance with the approved pretreatment program; or
  - e. Exceed National Pretreatment Standards: Prohibited Discharges, as identified in the Federal Pretreatment Regulations (40 CFR 403.5) and in regulations pursuant to Section 307(b) and (c) of the Act.
3. The Department of Natural Resources may require modifications in the approved pretreatment program which are necessary to maintain the above program capabilities.
4. The permittee shall not change or modify its approved pretreatment program except in accordance with 40 CFR 403.18, as amended October 17, 1988 (53 CFR 40615).
5. The permittee shall develop and maintain for a minimum of three years all records and information resulting from monitoring and enforcement activities necessary to determine nondomestic user compliance with the pretreatment standards, local limits, and conditions of the approved program.
6. The permittee shall annually review the adequacy of the approved pretreatment program with respect to the regulations at 40 CFR 403 and the ability to achieve the objectives stated in Paragraph 2 (above) currently and projected into the foreseeable future. Based upon the review, the permittee shall propose any necessary changes or modifications to the approved pretreatment program for approval by the Director.
7. The permittee shall submit to the Plainwell District Supervisor of the Surface Water Quality Division, beginning on August 1, 1985, and annually thereafter, a summary report on the status of program implementation and enforcement activities. The Annual Pretreatment Summary Report shall contain:

(continued)

## PART I

## C. PROGRAM FOR EFFECTIVE RESIDUALS MANAGEMENT

In addition to the requirements in Part II.C.7. in this permit, the permittee shall provide for the effective management and/or disposal of residuals, i.e., solids, sludges, ash, grit and other substances removed from or resulting from treatment of the wastewater. Residuals disposal shall be accomplished in such manner and at such locations that the disposal practices shall not result in unlawful pollution of the air, surface waters or ground waters of the state nor create nuisance conditions. Such management and/or disposal program shall be set forth in a "Program for Effective Residuals Management" prepared by the permittee.

The program shall include:

- (1) a management plan (treatment, transportation, storage, disposal, contingency plans);
- (2) an inventory of residuals production, storage, and disposal for a period of at least one year;
- (3) an analysis of the residuals;
- (4) a monitoring program;
- (5) if land application is proposed, include site maps, soil analyses, application rates, proposed vegetation and other pertinent information; and
- (6) if groundwater degradation potential exists, include a hydrogeologic study.

A program has previously been submitted to and approved by the District Supervisor of the Surface Water Quality Division. The permittee shall certify that current and future residuals management practices are in accordance with the approved program or the permittee shall submit proposed modifications to the approved program. The program certification or proposed modifications shall be submitted to and receive the approval of the District Supervisor of the Surface Water Quality Division on or before May 1, 1992.

Disposal of residuals resulting from the treatment of wastewater shall be in accordance with the previously approved program until proposed modifications are approved. If at any time the permittee desires to make any substantial changes in the approved program, the proposed changes shall be submitted to and approved by the District Supervisor of the Surface Water Quality Division prior to implementation. Substantial changes shall include, but not be limited to: a change in disposal method or site; a change in treatment method; a change in storage method or site; a change in monitoring parameters or monitoring frequency; an increase in application rate; or a change in residuals quantity or characteristics. Any residual disposal inconsistent with the approved program shall be considered a violation of this permit.

## PART II

## A. REPORTING, DEFINITIONS, AND MONITORING

## 1. Reporting

The permittee shall effectively monitor the operation of all processes comprising the treatment and control facilities. Monitoring data required by this permit and other data required by the Surface Water Quality Division shall be tabulated and summarized on a calendar month basis. Discharge Monitoring Reports, on forms supplied by the Surface Water Quality Division, shall be mailed to the address below, postmarked no later than the tenth (10th) of the first month following the report period.

Department of Natural Resources  
SWQD - Data Entry  
P.O. Box 30028  
Lansing, Michigan 48909

## 2. Definitions

## a. 30-Day Average Concentration

The 30-day average concentration is defined as the sum of the concentrations of the individual samples divided by the number of samples taken during a calendar month. If the pollutant concentration in any sample is less than the detection limit, regard that value as zero when calculating monthly average concentration. The 30-day average concentration for fecal coliform bacteria is defined as the geometric mean of the samples collected in a calendar month.

## b. 7-Day Average Concentration

The 7-day average concentration is defined as the sum of the concentrations of the individual samples divided by the number of samples taken during any 7 consecutive day period of a calendar month. The exception to this is the 7-day average concentration for fecal coliform bacteria. This is defined as the geometric mean of the samples collected in any 7 consecutive day period of a calendar month.

## c. 30-Day Average Load

The 30-day average load is defined as the sum of the weights of pollutants discharged on sampling days divided by the number of sampling days during a calendar month.

## d. 7-Day Average Load

The 7-day average load is defined as the sum of the weights of pollutants discharged on sampling days divided by the number of sampling days during any 7 consecutive days in a calendar month.

## e. Maximum Concentration

The maximum concentration is defined as the maximum concentration of a pollutant in any individual sample.

## PART II

## Section A.2. (continued)

## 1. National Pretreatment Standards

National Pretreatment Standards are defined as the regulations promulgated by or to be promulgated by the Federal Environmental Protection Agency pursuant to Section 307(b) and (c) of the Act. The standards establish nationwide limits for specific industrial categories for discharge to Publicly Owned Treatment Works.

## m. Pretreatment

Pretreatment is defined as reducing the amount of pollutants, eliminating pollutants, or altering the nature of pollutant properties to a less harmful state prior to discharge into a public sewer. The reduction or alteration can be by physical, chemical, or biological processes, process changes, or by other means. Dilution is not considered pretreatment unless expressly authorized by an applicable National Pretreatment Standard for a particular industrial category.

## n. Water Quality Standards

The Water Quality Standards are defined as Part 4 of the General Rules of the Michigan Water Resources Commission promulgated by authority of Sections 2 and 5 of the Michigan Act.

## 3. Monitoring

a. The analytical test procedures used shall conform to the rules and regulations promulgated under Section 304(h) of the "Act" (Title 40, Chapter 1, Subchapter D., Part 136-Guidelines Establishing Test Procedures for the Analysis of Pollutants). Copies are available from the Surface Water Quality Division on request. For parameters not covered by the regulations, test procedures shall be submitted for approval to the Chief of the Permits Section of the Surface Water Quality Division.

b. The permittee shall periodically calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals to ensure accuracy of measurements.

c. Fecal Coliform Bacteria analyses, at facilities using chlorine for disinfection, shall be performed on "grab" samples collected at varying times during an operating day. Information derived therefrom shall be correlated with chlorine residual levels, flow rate, and loading variations for the purpose of minimizing chlorine use, while maintaining compliance with the effluent limitations.

## 4. Recording Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

- a. The exact place, date, and time of measurement or sampling;
- b. The person(s) who performed the measurement or sample collection;
- c. The dates the analyses were performed;
- d. The person(s) who performed the analyses;
- e. The analytical techniques or methods used;
- f. The date of and person responsible for equipment calibration; and
- g. The results of all required analyses.

## PART II

## C. MANAGEMENT REQUIREMENTS

## 1. Change in Discharge

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized, shall constitute a violation of the permit. Any anticipated significant loading increase, facility expansions, or process modifications which will result in new, different, or increased discharges of pollutants must be reported by submission of a new NPDES application to the Chief of the Permits Section of the Surface Water Quality Division or, if such changes will not violate the effluent limitations specified in this permit, by notice to the Plainwell District Supervisor of the Surface Water Quality Division of such changes. Following such notice, the permit may be modified to specify and limit any pollutants not previously limited.

## 2. Containment Facilities

The permittee shall provide facilities for containment of any accidental losses of concentrated solutions, acids, alkalies, salts, oils, or other polluting materials. These facilities shall be approved under Act 98, Public Acts of 1913, as amended, and in accordance with the requirements of the Michigan Water Resources Commission Rules, Part 5.

## 3. Operator Certification

The permittee shall have the waste treatment facilities under the direct supervision of an operator certified by the Michigan Department of Natural Resources as required by Regulations Governing the Certification of Sewage Treatment Works Operators in accordance with Act 98, Public Acts of 1913, as amended (R 299.2911-R 299.2927).

## 4. Noncompliance Notification

If, for any reason, the permittee does not comply with or will be unable to comply with any condition specified in this permit, the permittee shall provide the Plainwell District Supervisor of the Surface Water Quality Division and the Regional Administrator with the following information, in writing, at the time of submittal of the monthly operating data:

- a. a description of the circumstances and cause of noncompliance; and
- b. the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncompliance.

## 5. Facilities Operation

All waste collection, control, treatment and disposal facilities shall be operated in a manner consistent with the following:

- a. At all times, all facilities shall be operated and maintained in an efficient and responsible manner.
- b. The permittee shall provide an adequate operating staff which is qualified to carry out the operation, maintenance and testing functions required to ensure compliance with this permit.

## PART II

## Section C. (continued)

## 9. Power Failures

In order to maintain compliance with the effluent limitations and prevent unauthorized discharges, the permittee shall:

a. Provide alternative power or equipment sufficient to operate essential facilities utilized by the permittee to comply with this permit in accordance with Design Criteria for Mechanical, Electric, and Fluid System and Component Reliability published by the Federal Environmental Protection Agency (EPA - 430-99-74-001), or

b. Upon the reduction, loss, or failure of one or more of the primary sources of power to facilities utilized by the permittee to maintain compliance with this permit, the permittee shall halt, reduce or otherwise control all discharges in order to maintain compliance with the effluent limitations and conditions of this permit.

## D. RESPONSIBILITIES

## 1. Right of Entry

The permittee shall allow the Michigan Water Resources Commission, the Regional Administrator and/or their authorized representatives, upon presentation of credentials:

a. to enter upon the permittee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this permit; and

b. at reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit, to inspect any monitoring equipment or monitoring method required in this permit and to sample any discharge of pollutants.

## 2. Transfer of Ownership or Control

In the event of any change in ownership or control of facilities from which the authorized discharge emanates, the permittee shall notify the succeeding owner or controller of the existence of this permit by letter. A copy of this letter shall be forwarded to the Plainwell District Supervisor of the Surface Water Quality Division and the Regional Administrator 30 days prior to the actual transfer of ownership or control.

## 3. Availability of Reports

All reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Surface Water Quality Division and the Regional Administrator. As required by the Act, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the Act, Sections 7 and 10 of the Michigan Act, and Sections 8 and 13 of Act 98, Public Acts of 1913, as amended.

SECTION 1 M

PERMIT  
NUMBER

MI0020494

SEE INSTRUCTIONS  
ON REVERSE SIDE

REQUEST FOR DISCHARGE IS

MODIFICATION - EXISTING - NEW - INCREASED USE - REISSUANCE

☐ ☐ ☐ ☐ ☒

ITEM  
1

ADDRESS  
OF  
FACILITY  
AND  
LOCATION  
OF  
DISCHARGE

A. FACILITY NAME <u>Pilgrimage WWT</u>		
B. STREET NUMBER <u>129</u>	C. STREET NAME <u>Fairlane</u>	
D. CITY NAME <u>Pilgrimage</u>		E. ZIP CODE <u>MICH. 49080</u>
F. NAME OF AUTHORIZED REPRESENTATIVE <u>Donald L. Morduck Jr.</u>		G. TITLE <u>SUPT.</u>
H. TELEPHONE NUMBER <u>616 6855153</u>	I. ADDRESS (IF DIFFERENT FROM ABOVE) <u>N.A.</u>	
J. CITY NAME <u>N.A.</u>		K. ZIP CODE <u>MICH. N.A.</u>
L. LOCATION OF DISCHARGE <u>NW 1/4, NE 1/4, SECTION 30, TOWN 1N, RANGE 11W</u>		
M. TOWNSHIP	N. COUNTY REFER TO TABLE I <u>Alcona</u> CO. NUMBER <u>03</u>	
O. INDUSTRIAL PRETREATMENT PROGRAM SUBMITTED <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N.A.	P. % COMBINED SEWERS <u>0.0</u> %	Q. BACK-UP POWER SOURCE <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N.A.
R. TYPE OF DISPOSAL FACILITY REFER TO TABLE II <u>02 13 17 23 40</u>	S. PROGRAM FOR EFFECTIVE RESIDUALS MANAGEMENT DATE SUBMITTED _____ <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO DATE IMPLEMENTED _____	
T. CONSTRUCTION GRANT PROGRAM STATUS <input type="checkbox"/> STEP I <input type="checkbox"/> STEP II <input type="checkbox"/> STEP III <input checked="" type="checkbox"/> N.A.	U. NO. OF PEOPLE THIS FACILITY SERVES _____	V. TYPE OF DISCHARGE GROUNDWATER <input type="checkbox"/> SURFACE WATER <input checked="" type="checkbox"/>

ITEM  
2

DESIGNATED  
AGENT

A. NAME OF AGENT ACTING ON BEHALF OF MUNICIPALITY (IF APPLICABLE) <u>N.A.</u>	
B. NAME OF AUTHORIZED REPRESENTATIVE <u>N.A.</u>	C. TITLE <u>N.A.</u>
D. STREET ADDRESS OR P.O. BOX <u>N.A.</u>	
E. CITY NAME <u>N.A.</u>	F. ZIP CODE <u>N.A.</u>

SIGNATURE OF APPLICANT

Donald L. Morduck Jr. DATE 12-2088

TITLE Superintendent WWT

SIGNATURE OF LOCAL GOVERNMENTAL REPRESENTATIVE

Where the applicant is not a municipality, the following certification of the local governmental representative is required.

"This is to certify that I am aware of and recognize the responsibilities of the municipality as set forth in Section 6(b) of the Michigan Water Resources Commission Act 245 of 1929."

Signature

Date

Please Print Name

Title/Representing



## SECTION 1 M

SEE INSTRUCTIONS  
ON REVERSE SIDEPERMIT  
NUMBER

MI0020494

ITEM  
3

A. LIST ALL GOVERNMENTAL UNITS SERVED BY THIS WASTEWATER TREATMENT FACILITY

Otsego Township  
 Village of Martin  
 Gun Plain Township  
 City of Plainwell

GOVERNMENTAL

UNITS

SERVED

BY

WWTP

ITEM  
4

B. LIST NAME AND MAILING ADDRESS OF ALL PROPERTY OWNERS ADJACENT TO THE TREATMENT FACILITY

Big Boy Restaurant  
 618 Allegan  
 Plainwell, MI 49080

MAILING

LIST

OF

ADJACENT

PROPERTY

OWNERS

Comfort Inn  
 622 Allegan  
 Plainwell, MI 49080

Simpson Plainwell Paper  
 200 Allegan  
 Plainwell MI 49080

City of Plainwell DPW  
 126 Ferlane  
 Plainwell, MI 49080

SEE INSTRUCTIONS  
ON REVERSE SIDE

SECTION 1 M

PERMIT  
NUMBER



M10020494

ITEM  
5

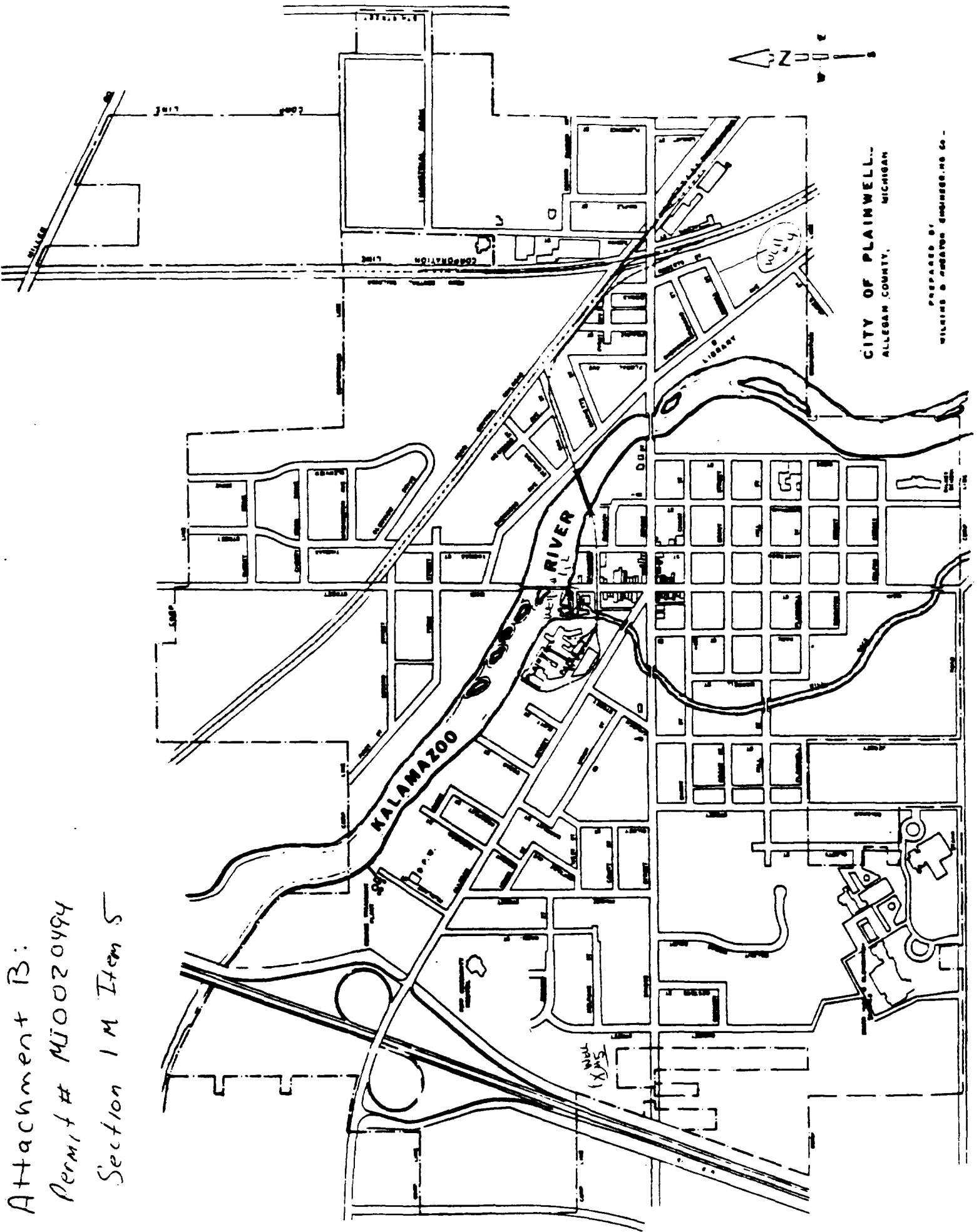
LOCATION

MAP

A. PROVIDE A MAP OF THE TREATMENT FACILITY LOCATION, SHOWING THE LOCATION OF THE DISCHARGE POINT(S) AND OTHER INFORMATION REQUESTED ON PAGE 17

See Attachment B:

Attachment B:  
Perm. # M10020494  
Section 1 M Item 5



# SECTION II M

SEE INSTRUCTIONS  
ON REVERSE SIDE

PERMIT  
NUMBER

M10020494

ITEM  
1

DISCHARGE  
SCHEDULE  
AND  
EXPECTED

WASTEWATER

CHARAC-  
TERISTICS

A. DO YOU DISCHARGE SEASONALLY?  
(IF NO, CONTINUE TO C.)

☐ YES

☒ NO

B. IF YES, LIST DISCHARGE PERIODS

MO. / DAY

MO. / DAY

\_\_\_/\_\_\_

THROUGH

\_\_\_/\_\_\_

\_\_\_/\_\_\_

THROUGH

\_\_\_/\_\_\_

\_\_\_/\_\_\_

THROUGH

\_\_\_/\_\_\_

\_\_\_/\_\_\_

THROUGH

\_\_\_/\_\_\_

\_\_\_/\_\_\_

THROUGH

\_\_\_/\_\_\_

C. DISCHARGE SCHEDULE (YEARLY AVERAGE)

HOURS/DAY

24

DAYS/YEAR

365

D. TOTAL DAILY AVERAGE INDUSTRIAL FLOW TO FACILITY (ESTIMATED)

\_\_\_ 50,000 G.P.D.

E. PRESENT DISCHARGE VOLUME FLOW RATE IN GALLONS PER DAY

30-DAY AVERAGE

\_\_\_ 60,000 G.P.D.

7-DAY AVERAGE

\_\_\_ 60,000 G.P.D.

DAILY MAXIMUM

\_\_\_ 180,000 G.P.D.

F. ANNUAL AVERAGE DESIGN FLOW

\_\_\_ 130,000 G.P.D.

G. EXPECTED DISCHARGE CHARACTERISTICS (YEARLY AVERAGE)

CONCENTRATION

UNITS CODE

UNITS CODE

1 Mg/l

2 Ug/l

3 COUNTS/  
100 ml

4 S.U.

5 °F

BOD<sub>5</sub> (TOTAL)

\_\_\_ 30 . \_\_\_

1

BOD<sub>5</sub> (CARBONACEOUS)

\_\_\_ 20 . \_\_\_

1

AMMONIA NITROGEN (AS N)

\_\_\_ NA . \_\_\_

1

TOTAL SUSPENDED SOLIDS

\_\_\_ 30 . \_\_\_

1

TOTAL PHOSPHORUS (AS P)

\_\_\_ 1 . 0

1

TOTAL RESIDUAL CHLORINE

\_\_\_ . 04

1

DISSOLVED OXYGEN

(MIN.) \_\_\_ 4 . 0 (MAX.)

1

PH

(MIN.) \_\_\_ 6 . 0 (MAX.) \_\_\_ 9 . 0

4

FECAL COLIFORM BACTERIA

(MIN.) \_\_\_ (MAX.) \_\_\_ 200

3

TEMPERATURE (SUMMER)

(MIN.) \_\_\_ (MAX.) \_\_\_ 70

5

TEMPERATURE (WINTER)

\_\_\_ 50 . \_\_\_

5

\_\_\_\_\_

\_\_\_\_\_

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\_\_\_

## SECTION II M

PERMIT  
NUMBER

MI 0020494

SEE INSTRUCTIONS  
ON REVERSE SIDEITEM  
2

LAND

APPLICATION

AND

GROUNDWATER

MONITORING

A. LAND APPLICATION RATE (IF APPLICABLE)  
(IF NOT APPLICABLE CONTINUE TO C)

NA

[ ] . [ ] INCHES/WEEK (MAXIMUM)

[ ] . [ ] INCHES/YEAR (MAXIMUM)

B. AMOUNT OF LAND, WASTEWATER IS APPLIED ON (IF APPLICABLE)

NA

[ ] . [ ] ACRES

C. DO YOU HAVE OR PROPOSE TO HAVE A GROUNDWATER MONITORING  
SYSTEM? (IF NO, CONTINUE TO ITEM 3)☐

YES

☒

NO

D. IF YES, PROVIDE A MAP INDICATING:

1. LOCATION OF ALL MONITORING WELLS RELATIVE TO THE FACILITY
2. DIRECTION OF GROUNDWATER FLOW

NA

SEE INSTRUCTIONS  
ON REVERSE SIDE

SECTION II M

PERMIT  
NUMBER



M10020494

ITEM  
3

DESCRIPTION

AND

DIAGRAM

OF

WWTP

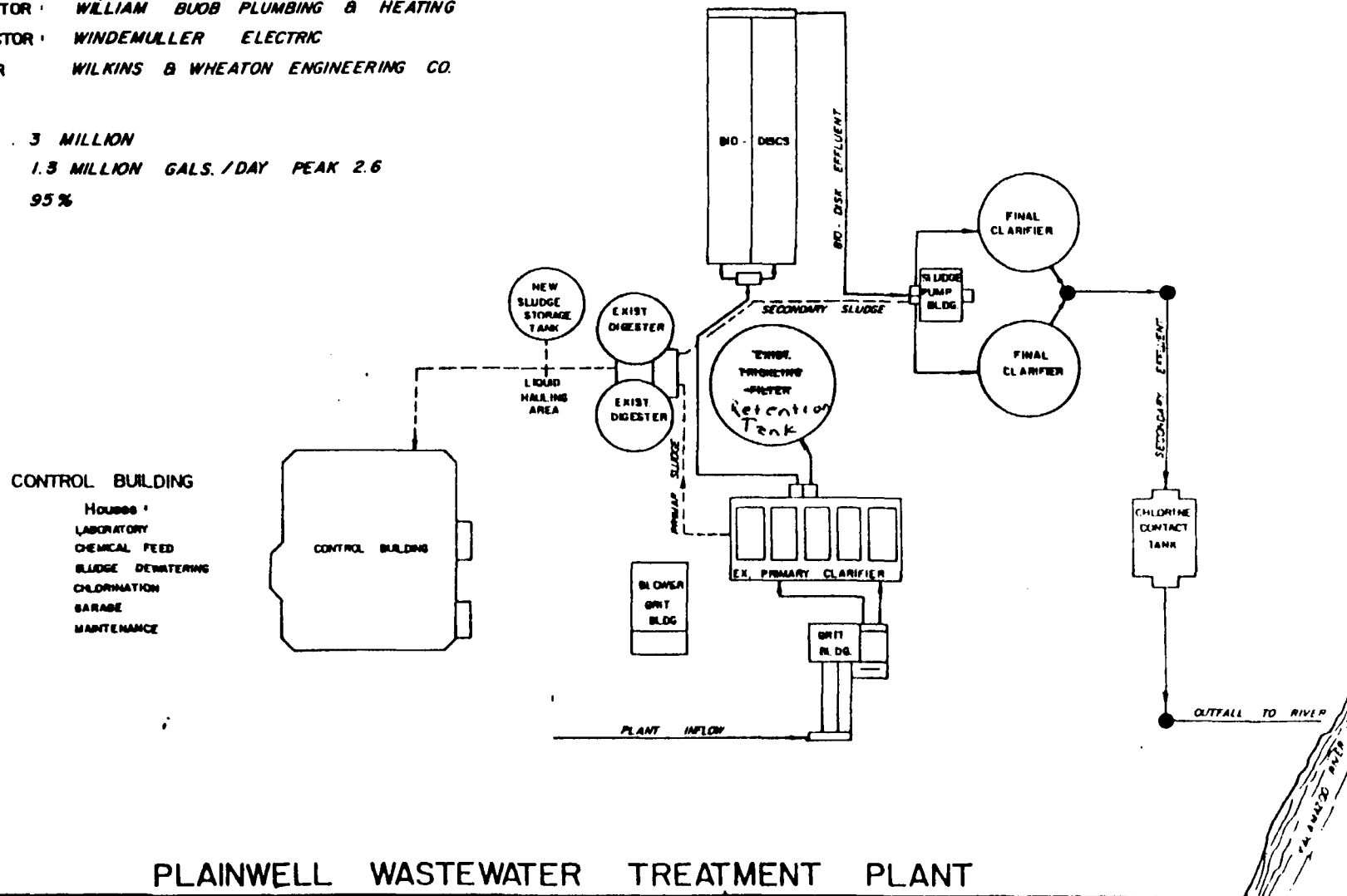
A. PROVIDE A BRIEF DESCRIPTION AND BLOCK DIAGRAM OF THE WASTEWATER TREATMENT FACILITIES.

See Attachment A.

# Attachment A: Permit# M10020494 Section 11 M Item 3

GENERAL CONTRACTOR: TRIANGLE ASSOCIATES, INC  
 MECHANICAL CONTRACTOR: WILLIAM BUOB PLUMBING & HEATING  
 ELECTRICAL CONTRACTOR: WINDEMULLER ELECTRIC  
 CONSULTING ENGINEER: WILKINS & WHEATON ENGINEERING CO.

PROJECT COST: 3 MILLION  
 DESIGN FLOW: 1.3 MILLION GALS./DAY PEAK 2.6  
 EXPECTED REMOVAL: 95%



PLAINWELL WASTEWATER TREATMENT PLANT

## SECTION II M

PERMIT  
NUMBER

M10020494

SEE INSTRUCTIONS  
ON REVERSE SIDEITEM  
4

RESIDUALS

SLUDGES

AND

RESIDUES

UNITS CODE

1 POUNDS

2 GALLONS

3 CUBIC  
YARDS

4 TONS

A. ARE SLUDGES, RESIDUES OR CRITICAL MATERIALS PRODUCED AS A  
RESULT OF TREATMENT OR CONTROL OF THIS WASTEWATER DISCHARGE?  
(IF NO, CONTINUE TO ITEM 5)☒ YES☐ NO

B. IS THE SLUDGE TREATED BEFORE DISPOSAL?

☒ YES☐ NO

C. IF YES, INDICATE TYPE OF TREATMENT

Anaerobic Digestion

D. AMOUNT OF SLUDGE PRODUCED

14235.00 AMOUNT UNITS  
2/YEAR

E. INDICATE TYPE OF STORAGE (IF ANY)

Above Ground Tank

F. IS SLUDGE CONSIDERED TO BE HAZARDOUS?  
(SEE INSTRUCTIONS ON REVERSE SIDE OF PAGE)☐ YES☒ NO

G. PHYSICAL CHARACTERISTICS

PHYSICAL STATE

Liquor

% SOLIDS

4.5%

H. DO YOU DISPOSE OF THE SLUDGE YOURSELF?  
(IF NO, CONTINUE TO J.)☒ YES☒ NO

TYPE OF DISPOSAL

LAND APPLICATION

I. LIST NAME(S) AND ADDRESS(ES) OF ALL PUBLIC/PRIVATE  
LANDFILL(S) OR LAND APPLICATION SITES WHERE YOU  
DISPOSE OF THE SLUDGE.Dewey Grimm  
539 105th Ave.  
Plainwell, MI 49080We haul ourselves but have  
contracted Enviroland to  
haul in fall of 88.LAND Application has been ruled out for Fall 88 +  
Landfill option of perm is being implemented. Landfill  
site at this date has not been determined, but  
will be approved by DNR first.J. LIST NAME(S) AND ADDRESS(ES) OF ALL COMMERCIAL WASTE  
HAULER(S) WHO TRANSPORT THE SLUDGE.Enviroland Inc. Land App.  
PO Box 178  
Dewitt, MI 49820Anticipate Michigan Disposal Service of 100 E North St  
Kalamazoo, MI to haul dried sludge to Land Fill  
LANDFILL IS FENSKE LANDFILL, 2637 WILSON AVE. SW  
GRAND RAPIDS MI 49504



## SECTION II M

PERMIT  
NUMBER

M10020494

SEE INSTRUCTIONS  
ON REVERSE SIDEITEM  
5

DISCHARGE

POINT

INFORMATION

FOR

BYPASS

OUTFALLS

AND/OR

COMBINED

SEWER

OVERFLOWS

DO YOU HAVE DISCHARGE POINTS WHICH ARE BYPASS OUTFALLS OR  
COMBINED SEWER OVERFLOWS? (IF NO, CONTINUE TO ITEM 6)☐

YES

☒

NO

DISCHARGE 1	A. LOCATION		
	B. NUMBER OF DISCHARGES PER YEAR		
	C. AVERAGE DURATION OF DISCHARGE (HOURS)		
	D. IS THIS DISCHARGE GENERALLY A WET OR DRY WEATHER DISCHARGE?	<input type="checkbox"/> DRY	<input type="checkbox"/> WET
	E. AVERAGE TOTAL GALLONS DISCHARGED PER OCCURRENCE		
DISCHARGE 2	A. LOCATION		
	B. NUMBER OF DISCHARGES PER YEAR		
	C. AVERAGE DURATION OF DISCHARGE (HOURS)		
	D. IS THIS DISCHARGE GENERALLY A WET OR DRY WEATHER DISCHARGE?	<input type="checkbox"/> DRY	<input type="checkbox"/> WET
	E. AVERAGE TOTAL GALLONS DISCHARGED PER OCCURRENCE		
DISCHARGE 3	A. LOCATION		
	B. NUMBER OF DISCHARGES PER YEAR		
	C. AVERAGE DURATION OF DISCHARGE (HOURS)		
	D. IS THIS DISCHARGE GENERALLY A WET OR DRY WEATHER DISCHARGE?	<input type="checkbox"/> DRY	<input type="checkbox"/> WET
	E. AVERAGE TOTAL GALLONS DISCHARGED PER OCCURRENCE		
DISCHARGE 4	A. LOCATION		
	B. NUMBER OF DISCHARGES PER YEAR		
	C. AVERAGE DURATION OF DISCHARGE (HOURS)		
	D. IS THIS DISCHARGE GENERALLY A WET OR DRY WEATHER DISCHARGE?	<input type="checkbox"/> DRY	<input type="checkbox"/> WET
	E. AVERAGE TOTAL GALLONS DISCHARGED PER OCCURRENCE		
DISCHARGE 5	A. LOCATION		
	B. NUMBER OF DISCHARGES PER YEAR		
	C. AVERAGE DURATION OF DISCHARGE (HOURS)		
	D. IS THIS DISCHARGE GENERALLY A WET OR DRY WEATHER DISCHARGE?	<input type="checkbox"/> DRY	<input type="checkbox"/> WET
	E. AVERAGE TOTAL GALLONS DISCHARGED PER OCCURRENCE		
DISCHARGE 6	A. LOCATION		
	B. NUMBER OF DISCHARGES PER YEAR		
	C. AVERAGE DURATION OF DISCHARGE (HOURS)		
	D. IS THIS DISCHARGE GENERALLY A WET OR DRY WEATHER DISCHARGE?	<input type="checkbox"/> DRY	<input type="checkbox"/> WET
	E. AVERAGE TOTAL GALLONS DISCHARGED PER OCCURRENCE		

# SECTION IIM

PERMIT  
NUMBER

M10020494

SEE INSTRUCTIONS  
ON REVERSE SIDE

ITEM  
6

CRITICAL  
MATERIALS  
IN  
DISCHARGE  
AND/OR  
IN  
SLUDGE

DOES THIS DISCHARGE CONTAIN ANY CRITICAL MATERIALS OR PRIORITY  
POLLUTANTS IN TABLES III & IV?

☒ YES

☐ NO

MATERIAL  
1

A. NAME OF CRITICAL MATERIAL

See Attachment "C" & "D"

B. PARAMETER NUMBER  
(REFER TO TABLES III & IV)

C. CONCENTRATION IN DISCHARGE

D. AMOUNT IN SLUDGE

MATERIAL  
2

A. NAME OF CRITICAL MATERIAL

B. PARAMETER NUMBER  
(REFER TO TABLES III & IV)

C. CONCENTRATION IN DISCHARGE

D. AMOUNT IN SLUDGE

MATERIAL  
3

A. NAME OF CRITICAL MATERIAL

B. PARAMETER NUMBER  
(REFER TO TABLES III & IV)

C. CONCENTRATION IN DISCHARGE

D. AMOUNT IN SLUDGE

MATERIAL  
4

A. NAME OF CRITICAL MATERIAL

B. PARAMETER NUMBER  
(REFER TO TABLES III & IV)

C. CONCENTRATION IN DISCHARGE

D. AMOUNT IN SLUDGE

MATERIAL  
5

A. NAME OF CRITICAL MATERIAL

B. PARAMETER NUMBER  
(REFER TO TABLES III & IV)

C. CONCENTRATION IN DISCHARGE

D. AMOUNT IN SLUDGE

MATERIAL  
6

A. NAME OF CRITICAL MATERIAL

B. PARAMETER NUMBER  
(REFER TO TABLES III & IV)

C. CONCENTRATION IN DISCHARGE

D. AMOUNT IN SLUDGE

MATERIAL  
7

A. NAME OF CRITICAL MATERIAL

B. PARAMETER NUMBER  
(REFER TO TABLES III & IV)

C. CONCENTRATION IN DISCHARGE

D. AMOUNT IN SLUDGE

MATERIAL  
8

A. NAME OF CRITICAL MATERIAL

B. PARAMETER NUMBER  
(REFER TO TABLES III & IV)

C. CONCENTRATION IN DISCHARGE

D. AMOUNT IN SLUDGE

Attachment "C"  
Section 1.4 Item 6

ANALYTICAL REPORT

To: City of Plainwell WWTP  
Permit # M/0020494

Date: 10/21/88

Laboratory Code: 881797

P.O. No.: 5639

---

Sample I.D.: Digesting Sludge

Total Solids, % of sample 6.12

	<u>Concentration</u> mg/kg dry solids
Cadmium	8
Chromium, total	27,100
Chromium, hexavalent	<100
Copper	8100
Lead	520
Mercury	<2
Molybdenum	<200
Nickel	4400
Zinc	4000

Attachment D

fishbeck, thompson, carr & huber  
engineers & scientists

November 22, 1988  
Project No. F88253

Mr. Donald Murdick  
City of Plainwell  
141 North Main Street  
Plainwell, MI 49080

Re: Sludge Cake Analysis

Dear Don:

Enclosed are results of EP toxicity testing of a sludge cake sample from the Plainwell Wastewater Treatment Plant. The sludge sample was dewatered in the lab by vacuum filtration. Best dewatering results were obtained with a combination of lime and ferric chloride conditioning. Details of the laboratory dewatering evaluation are also enclosed.

Results of the analytical testing indicate that the dewatered sludge from the plant does not exhibit the characteristic of EP toxicity. Regulatory limits from EP toxicity characteristics are enclosed.

If you have any questions, please call.

Sincerely,

FISHBECK, THOMPSON, CARR & HUBER, INC.



Peter R. Daukss, P.E.

cab

Enclosures

cc/enc: Bill Stewart - City of Plainwell  
David Preston - Varnum, Riddering, Schmidt & Howlett

Attachment D

*fishbeck, thompson, carr & huber*

fishbeck, thompson, carr & huber  
analytical services

City of Plainwell  
141 North Main  
Plainwell, MI 49080

Date Reported: 11/22/88  
Lab Number: 8811027  
Date Received: 11/04/88  
Client ID: 60888/F88253

Attention: Pete Daukss  
EP Toxicity: Lab-Treated Anaerobic Digester Sludge

<u>Analysis</u>	<u>Detection Limit</u>	<u>Results</u>	<u>Analyst</u>
Arsenic	10 ug/l	<10 ug/l	DLB
Barium	0.01 mg/l	0.22 mg/l	DLB
Cadmium	0.01 mg/l	<0.01 mg/l	DLB
Chromium, T.	0.02 mg/l	0.12 mg/l	GMB
Copper	0.01 mg/l	0.03 mg/l	MSC
Lead	0.05 mg/l	<0.05 mg/l	DLB
Mercury	0.5 ug/l	<0.5 ug/l	DLB
Selenium	10 ug/l	<10 ug/l	DLB
Silver	0.01 mg/l	<0.01 mg/l	MSC
Zinc	0.5 mg/l	8.5 mg/l	DLB

Analyses were performed in accordance with procedures described in EPA Publication SW-846, "Test Methods for Evaluating Solid Waste", Third Edition, September, 1986.

Above are the results of the analyses requested. If you have any questions regarding these results, please contact us.

*Mary Susan Crosby*  
Mary Susan Crosby  
Analytical Services Manager

## Attachment E

The Plainwell Wastewater Treatment Plant was originally built in the mid to late 50's. The plant utilized a Trickling Filter for secondary treatment.

In 1980 the plant was updated and utilized Rotating Biological Contactors (RBC) for secondary treatment. Listed below are the major areas of treatment and a list of the components of each.

**Preliminary Treatment:** The preliminary treatment process consist of a bar screen and comminutor operated in parallel, and an aerated grit tank. This was installed new in 1980. In 1992 we lowered the effluent weir, and installed an additional opening into the grit tank to allow design flows to pass through the comminutor. The original design was deficient in this area.

**Primary Treatment:** The primary treatment utilizes the 5 clarifiers that were part of the 1950 construction, but converted all of them to primary. In 1992 the effluent trough of the clarifiers was enlarged to allow for design flows to flow through the clarifiers. The original design was deficient in this area also.

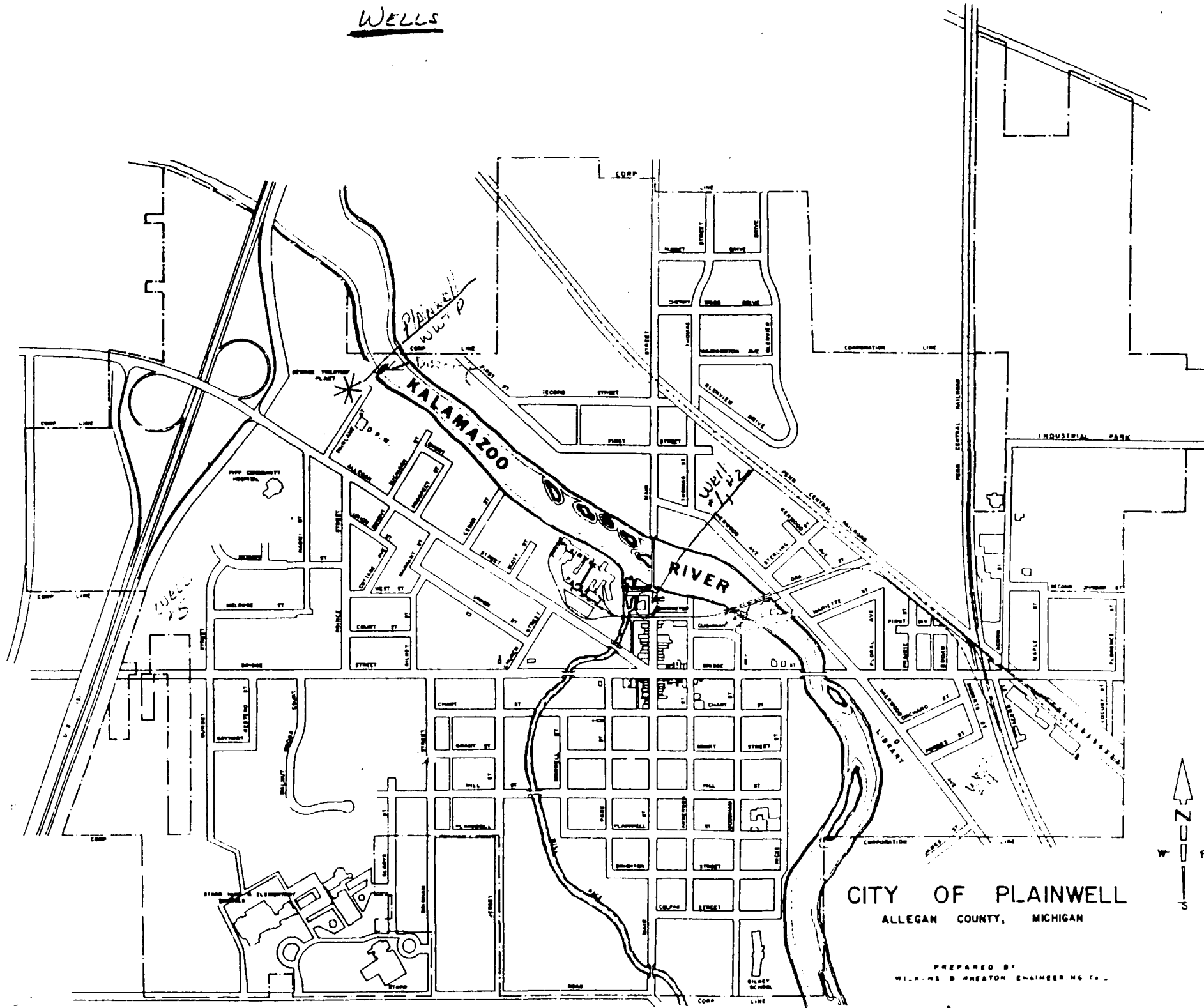
**Secondary Treatment:** The plant has 2 trains of 3 RBC's. The first shaft in each train contains standard density media, while the last two shafts contain high density media. The last two shafts are also split into 4 separate stages. Following the RBC's are two circular clarifiers.

**Disinfection:** Chlorination equipment was installed to perform the disinfection process. The chlorination system was moved out of the Control Building into a fiberglass house in 1986 or 87. At that time the switch was made to 150 pound cylinders from the ton cylinders. In 1989 dechlorination was added utilizing Sulfur Dioxide. An on-line residual analyzer was also installed at that time.

**Solids Handling:** Two digesters were upgraded in 1980 and a pearth gas mix system was installed. This construction also saw the installation of a small sludge storage tank and a vacuum filter. The vacuum filter was operated for 2.5 months in late 1988 and early 1989. It proved to be an inefficient method of operation and has been moth balled while we look at disposal options. In 1993 we received approval from the EPA and DNR to dispose of the unit, but have found no interest at this time. We utilized a rental belt press in 1994 to dewater the sludge for land filling our sludge. In 1992 a 500,000 gallon sludge storage tank was installed to aid in plant operations. In 1994 maintenance was performed on the gas handling system to correct operational problems. All of the installed equipment is now operational, but, as installed, there are a couple of problems that do not allow the units to operate concurrently. Those problems are being investigated at this time.

At this time there are no projected plans for expansion. We are aware that this is going to be a necessity in the near future and are beginning to piece information together for planning what the next step should be.

# WELLS



CITY OF PLAINWELL  
ALLEGAN COUNTY, MICHIGAN

PREPARED BY  
WILKINS & HEATON ENGINEERING CO.

## PLANT FLOWS

Raw influent comes into the primary clarifiers then it goes to the RBC's. From their it goes to the secondary clarifiers into the contact tank and then to the Kalamazoo River.

Raw sludge is pumped from the primary clarifiers to digesters 1 and 2. Secondary sludge is pumped back to the head of the plant.

Digested sludge is transferred from 1 and 2 digesters over to the sludge storage tank. Supernatant is drawn off here and returned to the head of plant.

Grit is taken out at the grit building and the return goes to the head of the plant.



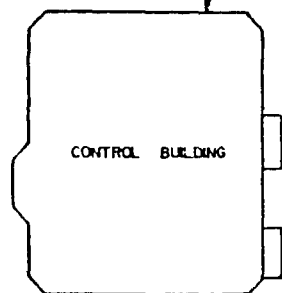
CONTRACTOR : TRIANGLE ASSOCIATES, INC  
 MECHANICAL CONTRACTOR : WILLIAM BUOB PLUMBING & HEATING  
 ELECTRICAL CONTRACTOR : WINDEMULLER ELECTRIC  
 CIVIL ENGINEER : WILKINS & WHEATON ENGINEERING CO.

ESTIMATED COST : 3 MILLION  
 FLOW : 1.3 MILLION GALS./DAY PEAK 2.6  
 BOD REMOVAL : 95 %

# CONTROL BUILDING

Houses :  
 LABORATORY  
 CHEMICAL FEED

GARAGE  
 MAINTENANCE



## PAINESVILLE WASTEWATER TREATMENT PLANT

# City of PLAINWELL Lift STATIONS p. 1

- # 11 225 Cushman ST.
- # 12 605 W. Hill ST.
- # 13 1002 WEDGEWOOD ST.
- # 14 429 JERSEY ST.
- 505 N. MAIN - NORTH PRAIRIE MANOR

MAIN City  
Lift Stations

## OTSEGO TOWNSHIP

- # 20 355 12<sup>th</sup> ST.
- 1185 M-89 - FRONT of WENDYS

## MARTIN

- # 1 1038 116<sup>th</sup> AVE
- # 2 1665 N. TENTH ST.
- # 3 1577 S. TENTH ST.

Village of  
MARTIN AREA

# Gun Plain Township

# 31  
# 32  
# 33

381 - M-89

102 GOUNTRY Club

117 S. LAKE DOSTER Drive

617 10th ST. - DNR

75 S. LAKE DOSTER Drive

161 S. LAKE DOSTER

177 S. LAKE DOSTER

335 LAKEVIEW

318 MIDLAKE

307 BLANEY

150 PARKWAY

332 1/2 BAYVIEW

336 BAYVIEW

341-BAYVIEW

353 HIGHLAND

349 HIGHLAND

327 HIGHLAND

11 HORSESHOE

309 HORSESHOE

319 HORSESHOE

363 HORSESHOE

LAKE DOSTER AREA

SMALLER GRINDER  
STATIONS THAT  
FEEL # 31, 32, 33



JOHN ENGLER, Governor

## DEPARTMENT OF ENVIRONMENTAL QUALITY

HOLLISTER BUILDING, PO BOX 30473, LANSING MI 48909-7973

RUSSELL J. HARDING, Director

## REPLY TO:

SURFACE WATER QUALITY DIVISION  
KNAPPS CENTRE  
PO BOX 30273  
LANSING MI 48909-7773

July 31, 1996

CERTIFIED MAIL -- P 381 768 771Ms. Ruth King, Clerk  
City of Plainwell  
141 North Main Street  
Plainwell, Michigan 49080-1397

Dear Ms. King:

SUBJECT: NPDES Permit No. MI0020494 -- Plainwell WWTP, 129 Fairlane, Plainwell

Your National Pollutant Discharge Elimination System (NPDES) Permit has been processed in accordance with appropriate state and federal regulations. It contains the requirements necessary for you to comply with state and federal water pollution control laws.

REVIEW THE PERMIT EFFLUENT LIMITS AND COMPLIANCE SCHEDULES CAREFULLY. These are subject to the criminal and civil enforcement provisions of both state and federal law. Permit violations are audited by the Michigan Department of Environmental Quality and the United States Environmental Protection Agency and may appear in a published quarterly noncompliance report made available to agencies and the public.

Your monitoring and reporting responsibilities must be complied with in accordance with this permit. If applicable, Discharge Monitoring Report forms will be transmitted to you in the near future. These reports are to be submitted monthly or otherwise as required by your NPDES permit.

Any reports, notifications, or questions regarding the attached permit or NPDES program should be directed to the following address:

Mr. Fred Morley, District Supervisor  
Plainwell District Office, SWQD, DEQ  
621 North 10th Street  
P.O. Box 355  
Plainwell, Michigan 49080  
Telephone: 616-685-9886

Sincerely,

*William E. McCracken*  
William E. McCracken, P.E.  
Chief, Permits Section  
Surface Water Quality Division  
517-373-8088

Enclosure: Permit

cc: EPA-Region 5  
208 Agency - West Michigan Regional Planning Commission  
Wastewater Treatment Facility Superintendent  
Mr. Fred Morley, Plainwell District Supervisor, SWQD (2)  
Data Entry, SWQD  
Point Source Studies (Grand Rapids District Office), SWQD  
Industrial Pretreatment Program Unit, SWQD  
Files

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
AUTHORIZATION TO DISCHARGE UNDER THE  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**

In compliance with the provisions of the Federal Water Pollution Control Act, as amended, (33 U.S.C. 1251 et seq; the "Federal Act"), Michigan Act 451, Public Acts of 1994, as amended (the "Michigan Act"), Parts 31 and 41, and Michigan Executive Orders 1991-31, 1995-4 and 1995-18,

City of Plainwell  
141 North Main Street  
Plainwell, Michigan 49080

is authorized to discharge from a facility located at

129 Fairlane  
Plainwell, Michigan 49080

designated as Plainwell WWTP


to the receiving water named the Kalamazoo River in accordance with effluent limitations, monitoring requirements and other conditions set forth in this permit.

This permit takes effect on November 1, 1996. Any person who is aggrieved by this permit may file a sworn petition with the Office of Administrative Hearings of the Michigan Department of Environmental Quality, setting forth the conditions of the permit which are being challenged and specifying the grounds for the challenge. The Department may reject any petition filed more than 60 days after issuance as being untimely. Upon granting of a contested case, the Department shall review the permit to determine which contested conditions shall be stayed until the Department takes its final action. If a condition contested by the applicant is a requirement placed on wastewater covered by a new or increased discharge authorization, such increased discharge authorization shall be stayed until the Department takes final action. All other conditions of the permit remain in full effect. If the contested condition is a modification of a previous permit condition and the Department determines the contested condition shall be stayed, then such previous condition remains in effect until the Department takes final action.

This permit and the authorization to discharge shall expire at midnight, October 1, 2000. In order to receive authorization to discharge beyond the date of expiration, the permittee shall submit an application which contains such information and forms as are required by the Michigan Department of Environmental Quality to the Plainwell District Supervisor of the Surface Water Quality Division by April 1, 2000.

This permit is based on an application submitted on March 31, 1995. The provisions of this permit are severable. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term in accordance with applicable laws and rules. On its effective date this permit shall supersede NPDES Permit No. MI0020494, expiring October 1, 1995.

Issued July 3, 1996.

  
William E. McCracken  
Chief, Permits Section  
Surface Water Quality Division

## PART I

## Section A. Limitations and Monitoring Requirements

## 1. Final Effluent Limitations, Outfall 001

## a. Discharge Authorization and Limitations

During the period beginning on the effective date of this permit and lasting until the expiration date of this permit, the permittee is authorized to discharge treated municipal wastewaters from the Plainwell wastewater treatment plant through outfall 001 to the Kalamazoo River. Such discharges shall be limited and monitored by the permittee as follows:

Parameter	Quantity or Loading				Quality or Concentration				Frequency of Analysis	Sample Type
	Monthly Average	7-Day Average	Daily Maximum	Units	Monthly Average	7-Day Average	Daily Maximum	Units		
Flow	(report)	—	(report)	MGD	—	—	—	—	Daily	Report Total Daily Flow
Carbonaceous Biochemical Oxygen Demand (CBOD <sub>5</sub> )										
10/1 - 4/30	271	350		lbs/day	25	40		mg/l	5X/Week	24-Hr Composite
5/1 - 9/30	217	325		lbs/day	20		30	mg/l	5X/Week	24-Hr Composite
Total Suspended Solids	325	488		lbs/day	30	45		mg/l	5X/Week	24-Hr Composite
Ammonia Nitrogen (as N)					(report)		(report)	mg/l	Weekly	24-Hr Composite
Total Phosphorus (as P)	10.8			lbs/day	1.0			mg/l	5X/Week	24-Hr Composite
Fecal Coliform Bacteria					200	400		cts/100 ml	5X/Week	Grab
Total Residual Chlorine							0.036	mg/l	Daily	Grab
Total Copper							(report)	ug/l	Quarterly	24-Hr Composite
pH	—	—	—	—	Daily Minimum 6.5	—	Daily Maximum 9.0	S.U.	5X/Week	Grab
Dissolved Oxygen					4.0			mg/l	5X/Week	Grab

The following design flows were used in determining the above limitations, but are not to be considered limitations or actual capacities themselves: 1.3 MGD.

## b. Sampling Type and Location

1) The sampling for CBOD<sub>5</sub>, Total Suspended Solids, Ammonia Nitrogen, Total Phosphorus, and Total Copper shall be 24-hour composites taken prior to disinfection. The sampling for Fecal Coliform Bacteria, Total Residual Chlorine, pH, and Dissolved Oxygen shall be grab samples taken of the effluent. Quarterly samples for Total Copper shall be taken in March, June, September, and December. The Plainwell District Supervisor of the Surface Water Quality Division may approve alternate sampling locations which are demonstrated by the permittee to be representative of the effluent.

**PART I****Section A. Limitations and Monitoring Requirements**

2) Compliance with the Total Residual Chlorine limit shall be determined on the basis of one or more grab samples. If more than one (1) sample per day is taken, the additional samples shall be collected in near equal intervals over at least eight (8) hours. The samples shall be analyzed immediately upon collection and the average reported as the daily maximum. The level of detection shall be determined for the analytical method used by following the procedures prescribed in 40 CFR 136 Appendix B. The reported level of detection shall not exceed 0.036 mg/l unless a higher level is appropriate because of sample matrix interference.

c. **Percent Removal Requirements**

In addition to the CBOD<sub>5</sub> and Total Suspended Solids limitations above, the 30-day average effluent CBOD<sub>5</sub> and Total Suspended Solids concentrations shall not exceed 15 percent of the average influent concentrations for approximately the same period. This requirement is in effect, only, from October 1 through April 30 of each calendar year for CBOD<sub>5</sub> and all year for Total Suspended Solids.

**PART I**

**Section B. Schedule of Compliance**

This section (Section B: Schedule of Compliance) is not needed for this permit.



**PART I****Section C. Industrial Waste Pretreatment Program****1. Michigan Industrial Pretreatment Program**

- a. The permittee shall implement the Michigan Industrial Pretreatment Program approved on June 27, 1985, and modifications thereto, which upon approval are incorporated as enforceable requirements of this permit.
- b. The permittee shall comply with Rules 323.2301 through 323.2317 of the Michigan Administrative Code (Part 23 Rules) and the approved Michigan Industrial Pretreatment Program.
- c. The permittee shall have the legal authority and necessary interjurisdictional agreements that provide the basis for the implementation and enforcement of the approved Michigan Industrial Pretreatment Program throughout the service area. The legal authority and necessary interjurisdictional agreements shall include, at a minimum, the authority to carry out the activities specified in Rule 323.2306(a).
- d. The permittee shall develop procedures which describe, in sufficient detail, program commitments which enable implementation of the approved Michigan Industrial Pretreatment Program and the Part 23 Rules in accordance with Rule 323.2306(c).
- e. The permittee shall establish an interjurisdictional agreement (or comparable document) with all tributary governmental jurisdictions. Each interjurisdictional agreement shall contain, at a minimum, the following:
  - 1) identification of the agency responsible for the implementation and enforcement of the approved Michigan Industrial Pretreatment Program within the tributary governmental jurisdiction's boundaries; and
  - 2) the provision of the legal authority which provides the basis for the implementation and enforcement of the approved Michigan Industrial Pretreatment Program within the tributary governmental jurisdiction's boundaries.
- f. The permittee shall prohibit discharges that:
  - 1) cause, in whole or in part, the permittee's failure to comply with any condition of this permit or the Michigan Act;
  - 2) restrict, in whole or in part, the permittee's approved Program for Effective Residuals Management (PERM).
  - 3) cause, in whole or in part, operational problems at the treatment facility or in its collection system;
  - 4) violate any of the general or specific prohibitions identified in Rule 323.2303(1) and (2);
  - 5) violate categorical standards identified in Rule 323.2311; and
  - 6) violate local limits established in accordance with Rule 323.2303(4).
- g. The permittee shall maintain a list of its nondomestic users that meet the criteria of a significant industrial user as identified in Rule 323.2302(cc).
- h. The permittee shall develop an enforcement response plan which describes, in sufficient detail, program commitments which will enable the enforcement of the approved Michigan Industrial Pretreatment Program and the Part 23 Rules in accordance with Rule 323.2306(g).

**PART I****Section C. Industrial Waste Pretreatment Program**

- i. The District Supervisor of the Surface Water Quality Division may require modifications to the approved Michigan Industrial Pretreatment Program which are necessary to ensure compliance with the Part 23 Rules in accordance with Rule 323.2309.
- j. The permittee shall not implement changes or modifications to the approved Michigan Industrial Pretreatment Program without notification to the District Supervisor of the Surface Water Quality Division.
- k. The permittee shall maintain an adequate revenue structure and staffing level for effective implementation of the approved Michigan Industrial Pretreatment Program.
- l. The permittee shall develop and maintain, for a minimum of three (3) years, all records and information necessary to determine nondomestic user compliance with the Part 23 Rules and the approved Michigan Industrial Pretreatment Program. This period of retention shall be extended during the course of any unresolved enforcement action or litigation regarding a nondomestic user or when requested by the Department or the United States Environmental Protection Agency. All of the aforementioned records and information shall be made available upon request for inspection and copying by the Department and the United States Environmental Protection Agency.
- m. The permittee shall evaluate the approved Michigan Industrial Pretreatment Program for compliance with the Part 23 Rules and the prohibitions stated in item f (above). Based upon this evaluation, the permittee shall propose to the District Supervisor of the Surface Water Quality Division all necessary changes or modifications to the approved Michigan Industrial Pretreatment Program no later than the next Industrial Pretreatment Program Annual Report due date (see item o below).
- n. The permittee shall develop and enforce local limits to implement the prohibitions listed in item f above. Local limits shall be based upon data representative of actual conditions demonstrated in a maximum allowable headworks loading analysis.
- o. On or before April 1st of each year, the permittee shall submit, as required by Rule 323.2310(8) an Industrial Pretreatment Program Annual Report on the status of program implementation and enforcement activities. The reporting period shall begin on January 1st and end on December 31st. The Industrial Pretreatment Program Annual Report shall be submitted to the District Supervisor of the Surface Water Quality Division and may be submitted on forms provided by the Department. At a minimum, the Industrial Pretreatment Program Annual Report shall contain the following items:
  - 1) additions, deletions, and any other modifications to the permittee's previously submitted nondomestic user inventory (Rule 323.2306(c)(i));
  - 2) additions, deletions, and any other modifications to the permittee's approved Significant Industrial User List (Rule 323.2306(h));
  - 3) a listing of the names of Significant Industrial Users not inspected by the permittee at least once during the reporting period or at the frequency committed to in the approved Michigan Industrial Pretreatment Program;
  - 4) a listing of the names of Significant Industrial Users not sampled for all required pollutants by the permittee at least once during the reporting period or at the frequency committed to in the approved Michigan Industrial Pretreatment Program;
  - 5) a listing of the names of Significant Industrial Users without a permit at any time during the reporting period;
  - 6) a listing of the names of categorical industrial users in significant noncompliance for each of the criteria defined in Rule 323.2302(dd)(i)-(viii);

**PART I****Section C. Industrial Waste Pretreatment Program**

- 7) proof of publication of all categorical industrial users in significant noncompliance in the largest daily newspaper in the municipality in which the permittee is located;
- 8) a summary of the enforcement activities by the permittee during the report period. This Summary shall include:
  - a) a listing of the names of nondomestic users which were the subject of an enforcement action;
  - b) the enforcement action taken and the date the action was taken; and
  - c) whether the nondomestic user returned to compliance by the end of the reporting period (include date nondomestic user returned to compliance).
- 9) a listing of the names of Significant Industrial Users who did not submit pretreatment reports in accordance with requirements specified in their permit during the reporting period.
- 10) a listing of the names of Significant Industrial Users who did not self-monitor in accordance with requirements specified in their permit during the reporting period;
- 11) A summary of results of all the sampling and analyses performed of the wastewater treatment influent, effluent, and sludge conducted in accordance with approved methods during the reporting period; and
- 12) any other relevant information as requested by the Department.

**PART I****Section D. Program for Effective Residuals Management****1. Program For Effective Residuals Management**

In addition to the requirements in Part II.D.7. in this permit, the permittee shall provide for the effective management and/or disposal of residuals, i.e., solids, sludges, ash, grit and other substances removed from or resulting from treatment of the wastewater. Residuals disposal shall be accomplished in such manner and at such locations that the disposal practices shall not result in unlawful pollution of the air, surface waters or groundwaters of the state nor create nuisance conditions. Such management and/or disposal program shall be set forth in a "Program for Effective Residuals Management" prepared by the permittee.

The program shall include:

- a. a management plan (treatment, transportation, storage, disposal, contingency plans);
- b. an inventory of residuals production, storage, and disposal for a period of at least one (1) year;
- c. an analysis of the residuals;
- d. a monitoring program;
- e. if land application is proposed, include site maps, soil analyses, application rates, proposed vegetation and other pertinent information; and
- f. if groundwater degradation potential exists, include a hydrogeologic study.

A program has previously been submitted to and approved by the Plainwell District Supervisor of the Surface Water Quality Division. The permittee shall certify that current and future residuals management practices are in accordance with the approved program or the permittee shall submit proposed modifications to the approved program. The program certification or proposed modifications shall be submitted to and approved by the Plainwell District Supervisor on or before April 1, 1997.

Disposal of residuals resulting from the treatment of wastewater shall be in accordance with the previously approved program until proposed modifications are approved. If at any time the permittee desires to make any substantial changes in the approved program, the proposed changes shall be submitted to and approved by the Plainwell District Supervisor prior to implementation. Substantial changes shall include, but not be limited to: a change in disposal method or site; a change in treatment method; a change in storage method or site; a change in monitoring parameters or monitoring frequency; an increase in application rate; or a change in residuals quantity or characteristics. Any residual disposal inconsistent with the approved program shall be considered a violation of this permit.

## PART II

### Section A. Definitions

This list of definitions may include terms not applicable to this permit.

**Acute toxic unit** is 100 divided by the LC50 or 100 divided by the EC50 (with the LC50 or EC50 expressed as a percentage).

**Chronic toxic unit** is 100 divided by the MATC (with the MATC expressed as a percentage).

**Daily maximum concentration** is the sum of the concentrations of the individual samples of a parameter divided by the number of samples taken during any calendar day. If the parameter concentration in any sample is less than the detection limit, regard that value as zero when calculating the daily maximum concentration.

**Daily maximum load** is the total discharge by weight of a parameter discharged during any calendar day.

**Daily minimum concentration** is the minimum concentration of a parameter in any individual sample taken during any calendar day.

**Plainwell District Supervisor of the Surface Water Quality Division** is located at the Plainwell District Office, 621 North 10th Street, P.O. Box 355, Plainwell, Michigan 49080, telephone: 616-685-9886 (fax: 616-685-1342).

**Division of Drinking Water and Radiological Protection, Michigan Department of Environmental Quality** mailing address is P.O. Box 30630, Lansing, Michigan 48909-8130.

**Division of Health Facility Development, Michigan Department of Commerce** mailing address is P.O. Box 30195, Lansing, Michigan 48909.

**EC50** (median effect concentration) is the concentration of the effluent predicted by the acute toxicity test results to produce an adverse effect in 50% of the test organism population in a given time interval.

**Fecal coliform bacteria monthly (30-day) average** is the geometric mean of the samples collected in a calendar month.

**Fecal coliform bacteria 7-day average** is the geometric mean of the samples collected in any 7-day period.

**Flow Proportioned sample** is a composite sample with the sample volume proportional to the effluent flow.

**Grab sample** is a single sample taken at neither a set time nor flow.

**Interference** is a discharge which, alone or in conjunction with a discharge or discharges from other sources, both:  
1) inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and  
2) therefore, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or, of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent state or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including Title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including state regulations contained in any state sludge management plan prepared pursuant to Subtitle D of the SWDA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act. [This definition does not apply to sample matrix interference.]

**LC50** (median lethal concentration) is the concentration of the effluent predicted by the acute toxicity test results to kill 50% of the test organism population in a given time interval.

**MATC** is the maximum acceptable toxicant concentration obtained by calculating the geometric mean of the lower and upper chronic limits from a chronic toxicity test.

## PART II

### Section A. Definitions

**Monthly (30-day) average concentration** is the sum of the concentrations of the individual samples divided by the number of samples taken during a reporting month. If the parameter concentration in any sample is less than the detection limit, regard that value as zero when calculating monthly average concentration.

**Monthly (30-day) average load** is the sum of the daily maximum loads of a parameter divided by the number of daily maximum loads in the reporting month. If the parameter concentration in any sample is less than the detection limit, regard that value as zero when calculating monthly average concentration.

**National Pretreatment Standards** are the regulations promulgated by or to be promulgated by the Federal Environmental Protection Agency pursuant to Section 307(b) and (c) of the Federal Act. The standards establish nationwide limits for specific industrial categories for discharge to a POTW.

**Noncontact Cooling Water** is water used for cooling which does not come into direct contact with any raw material, intermediate product, by-product, waste product or finished product.

**Nondomestic user** is any discharger to a POTW that discharges wastes other than or in addition to water-carried wastes from toilet, kitchen, laundry, bathing or other facilities used for household purposes.

**Pretreatment** is reducing the amount of pollutants, eliminating pollutants, or altering the nature of pollutant properties to a less harmful state prior to discharge into a public sewer. The reduction or alteration can be by physical, chemical, or biological processes, process changes, or by other means. Dilution is not considered pretreatment unless expressly authorized by an applicable National Pretreatment Standard for a particular industrial category.

**POTW** is a publicly owned treatment works.

**Regional Administrator** is the Region V Administrator, U.S. EPA, located at R-16J, 77 W. Jackson Blvd., Chicago, Illinois 60604.

**7-day average concentration** is the sum of the concentrations of the individual samples divided by the number of samples taken during any 7 consecutive days in a calendar month. If the parameter concentration in any sample is less than the detection limit, regard that value as zero when calculating the 7-day average concentration.

**7-day average load** is the sum of the weights of parameters discharged divided by the number of samples taken during any 7 consecutive days in a calendar month. If the parameter concentration in any sample is less than the detection limit, regard that value as zero when calculating the 7-day average load.

**Significant industrial user** is a nondomestic user that: 1) is subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N; or 2) discharges an average of 25,000 gallons per day or more of process wastewater to a POTW (excluding sanitary, noncontact cooling and boiler blowdown wastewater); contributes a process wastestream which makes up five (5) percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or is designated as such by the permittee as defined in 40 CFR 403.12(a) on the basis that the industrial user has a reasonable potential for adversely affecting the POTW's treatment plant operation or violating any pretreatment standard or requirement (in accordance with 40 CFR 403.8(f)(6)).

**3-Portion Composite sample** is a sample consisting of three equal volume grab samples collected at equal intervals over an 8 hour period.

**24-Hour Composite sample** is a flow proportioned composite sample consisting of hourly or more frequent portions that are taken over a 24-hour period.

## **PART II**

### **Section B. Monitoring Procedures**

#### **1. Representative Samples**

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge.

#### **2. Test Procedures**

Test procedures for the analysis of pollutants shall conform to regulations promulgated pursuant to Section 304(h) of the Federal Act (40 CFR Part 136 - Guidelines Establishing Test Procedures for the Analysis of Pollutants). For parameters not specified in the permit or covered by the regulations, test procedures shall be submitted for approval to the Plainwell District Supervisor of the Surface Water Quality Division.

The permittee shall periodically calibrate and perform maintenance procedures on all analytical instrumentation at intervals to ensure accuracy of measurements. The calibration and maintenance shall be performed as part of the permittee's laboratory Quality Control/Quality Assurance program.

#### **3. Instrumentation**

The permittee shall periodically calibrate and perform maintenance procedures on all monitoring instrumentation at intervals to ensure accuracy of measurements.

#### **4. Recording Results**

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information: 1) the exact place, date, and time of measurement or sampling; 2) the person(s) who performed the measurement or sample collection; 3) the dates the analyses were performed; 4) the person(s) who performed the analyses; 5) the analytical techniques or methods used; 6) the date of and person responsible for equipment calibration; and 7) the results of all required analyses.

#### **5. Records Retention**

All records and information resulting from the monitoring activities required by this permit including all records of analyses performed and calibration and maintenance of instrumentation and recordings from continuous monitoring instrumentation shall be retained for a minimum of three (3) years, or longer if requested by the Regional Administrator or the Michigan Department of Environmental Quality.

**PART II****Section C. Reporting Requirements****1. Start-up Notification**

If the permittee will not discharge during the first 60 days following the effective date of this permit, the permittee shall notify the Plainwell District Supervisor of the Surface Water Quality Division within 14 days, and then 60 days prior to the commencement of the discharge.

**2. DMR Submittal Requirements**

Unless instructed on the effluent limits page to conduct retained self-monitoring, the permittee shall submit Discharge Monitoring Report (DMR) forms to the PCS Unit, Surface Water Quality Division, Michigan Department of Environmental Quality, P.O. Box 30273, Lansing, Michigan, 48909-7773, for each calendar month of the authorized discharge period(s). The DMRs shall be postmarked no later than the 10th day of the month following each month of the authorized discharge period(s).

**3. Retained Self-Monitoring Requirements**

If instructed on the effluent limits page to conduct retained self-monitoring, the permittee shall maintain a year-to-date log of retained self-monitoring results and provide such log for inspection to the staff of the Surface Water Quality Division, Michigan Department of Environmental Quality; or for mobile home parks, campgrounds, marinas and schools: Environmental Health Services Division, Michigan Department of Public Health; Northern Peninsula Division, Michigan Department of Public Health; or for hospitals, nursing homes and extended care facilities: Division of Health Facility Licensing & Certification, Michigan Department of Public Health upon request. Retained self-monitoring results are public information and shall be promptly provided to the public upon request.

The permittee shall certify, in writing, to the Plainwell District Supervisor of the Surface Water Quality Division, Department of Environmental Quality on or before January 10th of each year, that: 1) all retained self-monitoring requirements have been complied with and a year-to-date log has been maintained; and 2) the flow rate(s) (if part of retained self-monitoring results) from all outfalls have been substantially the same as the flow rate(s) authorized by this permit, or if the flow rate(s) (if part of retained self-monitoring results) is (are) substantially different from the flow rate(s) authorized by this permit, the reasons for the difference in flow rates.

**4. Additional Monitoring by Permittee**

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report. Such increased frequency shall also be indicated.

**5. Compliance Dates Notification**

Within 14 days of every compliance date specified in this permit, the permittee shall submit a written notification to the Plainwell District Supervisor of the Surface Water Quality Division indicating whether or not the particular requirement was accomplished. If the requirement was not accomplished, the notification shall include an explanation of the failure to accomplish the requirement, actions taken or planned by the permittee to correct the situation, and an estimate of when the requirement will be accomplished. If a written report is required to be submitted by a specified date and the permittee accomplishes this, a separate written notification is not required.



## PART II

### Section C. Reporting Requirements

#### 6. Noncompliance Notification

Compliance with all requirements set forth in the Federal Act, Parts 31 and 41 of the Michigan Act, and related regulations and rules is required. All instances of noncompliance shall be reported as follows:

- a. 24-hour reporting - Any noncompliance which may endanger health or the environment (including daily maximum discharge limitation exceedances) shall be reported, verbally, within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five (5) days.
- b. other reporting - The permittee shall report, in writing, all other instances of noncompliance not described in a. above at the time monitoring reports are submitted; or, in the case of retained self-monitoring, within five (5) days from the time the permittee becomes aware of the noncompliance.

Written reporting shall include: 1) a description of the discharge and cause of noncompliance; and 2) the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and the steps taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.

#### 7. Spill Notification

The permittee shall immediately report any spill or loss of any product, by-product, intermediate product, oils, solvents, waste material, or any other polluting substance which occurs to the surface waters or groundwaters of the state by calling the Department of Environmental Quality's 24-hour Emergency Response telephone number, 1-800-292-4706 (calls from out-of-state dial 1-517-373-8166); and within ten (10) days of the spill or loss, the permittee shall submit to the Plainwell District Supervisor of the Surface Water Quality Division a full written explanation as to the cause and discovery of the spill or loss, clean-up and recovery measures taken, preventative measures to be taken, and schedule of implementation.

#### 8. Upset Noncompliance Notification

If a process "upset" (defined as an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee) has occurred, the permittee who wishes to establish the affirmative defense of upset shall notify the Plainwell District Supervisor of the Surface Water Quality Division by telephone within 24 hours of becoming aware of such conditions; and within five (5) days, provide in writing, the following information:

- a. that an upset occurred and that the permittee can identify the specific cause(s) of the upset;
- b. that the permitted wastewater treatment facility was, at the time, being properly operated; and
- c. that the permittee has specified and taken action on all responsible steps to minimize or correct any adverse impact in the environment resulting from noncompliance with this permit.

In any enforcement proceedings, the permittee, seeking to establish the occurrence of an upset, has the burden of proof.

**PART II****Section C. Reporting Requirements****9. Bypass Prohibition and Notification**

- a. **Bypass Prohibition** - Bypass is prohibited unless:
- 1) bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
  - 2) there were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass; and
  - (3) the permittee submitted notices as required under 9.b. or 9.c. below.
- b. **Notice of Anticipated Bypass** - If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the Plainwell District Supervisor of the Surface Water Quality Division, if possible at least ten days before the date of the bypass, and provide information about the anticipated bypass as required by the Plainwell District Supervisor. The Plainwell District Supervisor may approve an anticipated bypass, after considering its adverse effects, if it will meet the three conditions listed in 9.a. above.
- c. **Notice of Unanticipated Bypass** - The permittee shall submit notice to the Plainwell District Supervisor of the Surface Water Quality Division of an unanticipated bypass by telephone at 616-685-9886 (if the notice is provided after regular working hours, use the following number: 1-800-292-4706) as soon as possible, but no later than 24 hours from the time the permittee becomes aware of the circumstances.
- d. **Written Report of Bypass** - A written submission shall be provided within five (5) working days of commencing any bypass to the Plainwell District Supervisor of the Surface Water Quality Division, and at additional times as directed by the Plainwell District Supervisor. The written submission shall contain a description of the bypass and its cause; the period of bypass, including exact dates and times, and if the bypass has not been corrected, the anticipated time it is expected to continue; steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass; and other information as required by the Plainwell District Supervisor.
- e. **Bypass Not Exceeding Limitations** - The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of 9.a., 9.b., 9.c., and 9.d., above. This provision does not relieve the permittee of any notification responsibilities under Part II.C.10. of this permit.
- f. **Definitions**
- (1) Bypass means the intentional diversion of waste streams from any portion of a treatment facility.
  - (2) Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

**PART II****Section C. Reporting Requirements****10. Changes in Discharge**

The permittee shall notify the Plainwell District Supervisor of the Surface Water Quality Division, in writing, within 10 days of knowing, or having reason to believe, that any activity or change has occurred or will occur which would result in the discharge of: 1) detectable levels of chemicals on the current Michigan Critical Materials Register or priority pollutants or hazardous substances set forth in 40 CFR 122.21, Appendix D, which were not acknowledged in the application or listed in the application at less than detectable levels; 2) detectable levels of any other chemical not listed in the application or listed at less than detection, for which the application specifically requested information (The detectable level shall be defined as the Method Detection Limit (MDL) as given in Appendix B to Part 136, Federal Register, Vol. 49, No. 209, October 26, 1984, pp. 43430-31.); or 3) any chemical at levels greater than five times the average level reported in the application submitted on March 31, 1995. Any other monitoring results obtained as a requirement of this permit shall be reported in accordance with the compliance schedules.

**11. Changes in Facility Operations**

Any anticipated facility expansion, production increases, or process modification which will result in new, different, or increased discharges of pollutants must be reported by submission of a new application to the Plainwell District Supervisor of the Surface Water Quality Division or, by notice to the Plainwell District Supervisor if the following conditions are met: 1) the changes will not result in the discharge of wastewater not currently authorized or at volumes greater than currently authorized by this permit; 2) the changes will not violate the effluent limitations specified in this permit; and 3) the changes will not require notification pursuant to Part II.C.10. Following such notice, the permit may be modified according to applicable laws and rules to specify and limit any pollutant not previously limited.

**12. Transfer of Ownership or Control**

In the event of any change in control or ownership of facilities from which the authorized discharge emanates, the permittee shall notify the succeeding owner or controller of the existence of this permit by letter, a copy of which shall be forwarded to the Plainwell District Supervisor of the Surface Water Quality Division 30 days prior to the actual transfer of ownership or control.

## PART II

### Section D. Management Responsibilities

#### 1. Duty to Comply

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit.

It is the duty of the permittee to comply with all the terms and conditions of this permit. Any noncompliance with the Effluent Limitations, Special Conditions, or terms of this permit constitutes a violation of the Michigan Act and/or the Federal Act and constitutes grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of an application for permit renewal.

#### 2. Operator Certification

The permittee shall have the waste treatment facilities under direct supervision of an operator certified at the appropriate level for the facility certification by the Michigan Department of Environmental Quality, as required by Sections 3110 and 4104 of the Michigan Act.

#### 3. Facilities Operation

The permittee shall, at all times, properly operate and maintain all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes adequate laboratory controls and appropriate quality assurance procedures.

#### 4. Power Failures

In order to maintain compliance with the effluent limitations of this permit and prevent unauthorized discharges, the permittee shall either:

- a. provide an alternative power source sufficient to operate facilities utilized by the permittee to maintain compliance with the effluent limitations and conditions of this permit; or
- b. upon the reduction, loss, or failure of one or more of the primary sources of power to facilities utilized by the permittee to maintain compliance with the effluent limitations and conditions of this permit, the permittee shall halt, reduce or otherwise control production and/or all discharge in order to maintain compliance with the effluent limitations and conditions of this permit.

#### 5. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to the surface waters or groundwaters of the state resulting from noncompliance with any effluent limitation specified in this permit including, but not limited to, such accelerated or additional monitoring as necessary to determine the nature and impact of the discharge in noncompliance.

#### 6. Containment Facilities

The permittee shall provide facilities for containment of any accidental losses of concentrated solutions, acids, alkalis, salts, oils, or other polluting materials in accordance with the requirements of the Part 5 Rules (Rules 323.1151 through 323.1169 of the Michigan Administrative Code). For a POTW, these facilities shall be approved under Part 41 of the Michigan Act.

**PART II****Section D. Management Responsibilities****7. Waste Treatment Residues**

Solids, sludges, biosolids, filter backwash, scrubber water or other pollutants resulting from treatment or control of wastewaters shall be disposed of in an environmentally compatible manner and according to applicable laws and rules. Such disposal shall not result in any unlawful pollution of the air, surface waters or groundwaters of the state.

**8. Right of Entry**

The permittee shall allow the Michigan Department of Environmental Quality, any agent appointed by the Department or the Regional Administrator, upon the presentation of credentials:

- a. to enter upon the permittee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this permit; and
- b. at reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect process facilities, treatment works, monitoring methods and equipment regulated or required under this permit; and to sample any discharge of pollutants.

**9. Availability of Reports**

Except for data determined to be confidential under Section 308 of the Federal Act and Rule 2128 (Rule 323.2128 of the Michigan Administrative Code), all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department and the Regional Administrator. As required by the Federal Act, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the Federal Act and Sections 3112, 3115, 4106 and 4110 of the Michigan Act.

**PART II****Section E. Activities Not Authorized by This Permit****1. Discharge to the Groundwaters**

This permit does not authorize any discharge to the groundwaters. Such discharge must be authorized by a groundwater discharge permit issued pursuant to the Michigan Act.

**2. Facility Construction**

This permit does not authorize or approve the construction or modification of any physical structures or facilities. Approval for such construction for a POTW must be by permit issued under Part 41 of the Michigan Act. Approval for such construction for a mobile home park, campground, hospital, nursing home or marina shall be from the Michigan Department of Public Health.

**3. Civil and Criminal Liability**

Except as provided in permit conditions on "Bypass" (Part II.C.9. pursuant to 40 CFR 122.41(m)), nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance, whether or not such noncompliance is due to factors beyond his control, such as accidents, equipment breakdowns, or labor disputes.

**4. Oil and Hazardous Substance Liability**

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee may be subject under Section 311 of the Federal Act except as are exempted by federal regulations.

**5. State Laws**

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by Section 510 of the Federal Act.

**6. Property Rights**

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize violation of any federal, state or local laws or regulations, nor does it obviate the necessity of obtaining such permits or approvals from other units of government as may be required by law.

**MUNICIPAL WASTEWATER  
DISCHARGE APPLICATION  
FOR THE**

*530*  
(facility name) \_\_\_\_\_



**RECEIVED**

BY *[Signature]*

JAN 26 1995

CITY OF PLAINWELL  
WWTP

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# GENERAL INSTRUCTIONS

## PURPOSE

Any person discharging or proposing to discharge wastewater to the surface waters shall make application for and obtain a valid wastewater discharge permit from the Michigan Water Resources Commission. This permit is called a National Pollutant Discharge Elimination System (NPDES) permit.

This application form applies to facilities that discharge **sanitary** wastewater to the surface waters of this State. Sanitary wastewater is water-carried wastes from toilet, kitchen, laundry, bathing or other facilities containing human body and household wastes.

Such facilities generally include Publicly-Owned Treatment Works (Municipal Wastewater Treatment Plants and Municipal Wastewater Stabilization Lagoons), Mobile Home Parks, Campgrounds, Parks, Rest Areas, Schools, Hotels & Motels, Condominiums, Apartments, Marinas, Nursing Homes, Prisons and certain Federal Facilities.

**Completion of this application by the discharger is required at least 180 days prior to commencing a discharge, or expiration of your current NPDES permit.**

## AUTHORIZATION

The Michigan Water Resources Commission Act 245, Public Acts of 1929, as amended, provides authority to issue permits for wastewater discharges.

The Michigan Water Resources Commission, through the Michigan Department of Natural Resources, administers the wastewater discharge permits program.

## COMPLETION OF THIS FORM

1. It is the duty of the person responsible for the operation of the wastewater treatment facility to obtain the discharge permit. This application must be filled out by that person or an authorized representative.
2. Unless otherwise specified, all requested information must be provided. If a particular item or choice of answers does not fit the circumstances or characteristics of your wastewater treatment facility, enter "N.A." for "Not Applicable" to indicate that the particular item was considered, not inadvertently passed over.

If any requested information is not provided, this application may be returned to the applicant for completion.

3. If there are both existing **and** proposed wastewater treatment facilities we need information on both. Please make an extra copy of each blank page **where there are differences** between the existing and proposed facilities. Then fill out one page for the **existing** facility and one page for the proposed facility. (Please include the "proposed facility" information only if it is expected to be constructed and discharging within the next 5 years.)
4. Send the completed application to the address below. For assistance and advice on filling out this application, please contact us.

Surface Water Quality Division  
Permits Section  
Department of Natural Resources  
P.O. Box 30028  
Lansing, Michigan 48909  
(517) 373-8088

# INSTRUCTIONS FOR COMPLETING PAGE 1

Each numbered item below corresponds to each numbered item on the adjacent page. —————>

1. Facility Name—Enter the proper, full name of the facility from which the discharge(s) of treated wastewater occurs or will occur.
2. Enter the address where the facility is physically located.
3. Enter the mailing address for the facility (if same as 2 above, only the zip code is needed here).
4. Owner, Mailing Address—Identify who has legal ownership of the facility and their mailing address. In addition, indicate the person to contact, if different from the owner, who is thoroughly familiar with the information reported on this form, their telephone number and mailing address.
5. Check the appropriate box and fill in the areas which explain this application request.

Rule 98 of the Michigan Water Quality Standards requires an Antidegradation Demonstration for some discharges to state waters. You must provide an Antidegradation Demonstration with your NPDES permit application if you checked NEW, INCREASED USE or EXISTING UNPERMITTED and discharge to one of the following:

1. the Great Lakes (excluding tributaries and connecting channels),
2. Michigan trout streams south of a line between Bay City, Midland, Alma and North Muskegon
3. inland lakes,
4. reaches of country scenic and wild scenic rivers designated under Act No. 231 of the Public Acts of 1970 being §281.761 et seq. of the Michigan Compiled Laws.
5. Scenic and recreational rivers designated under the wild and scenic rivers act of 1968, 16 U.S.C. §1721 et seq.

Your application will be incomplete if this information is not provided. The demonstration must show that a lowering of water quality will not be unreasonable, is in the public interest in view of existing conditions, is necessary to accommodate important social or economic development, and that no prudent and feasible alternatives exist.

6. If there is a facility operator or superintendent, identify him or her, their phone number, their certification and the classification of the facility.

## EXAMPLE

Water Resources Commission Municipal Wastewater Discharge Application		DNR	
—INSTRUCTIONS on Adjacent Page			
<b>PLEASE PRINT</b>			
1. Facility Name <u>STROMBOLIS WASTEWATER TREATMENT PLANT</u>			
2. Facility Location			
Street # and Name <u>530 COUNTRY ROAD</u>			
City or Village <u>STROMBOLIS</u>		County <u>TRUMBULL</u>	
3. Facility Mailing Address			
Street # and Name <u>same</u>			
City or Village <u>same</u>		State <u>MI</u> Zip <u>48152</u>	
4. Owner Mailing Address			
Owner <u>STROMBOLIS</u>		Phone <u>---</u>	
Street # and Name <u>1211 1/2 1ST ST</u>			
City or Village <u>STROMBOLIS</u>		State <u>MI</u> Zip <u>48152</u>	
Contact Person <u>MARK GARDINER</u>		Title <u>OWN</u>	
Street # and Name <u>same as owner</u>		Phone <u>(519) 333-8100</u>	
City or Village <u>same</u>		State <u>MI</u> Zip <u>---</u>	
5. This permit application is a request for (check one):			
<input type="checkbox"/> the RESURRECTION of the current permit — permit # _____			
<input type="checkbox"/> a MODIFICATION of the current permit — permit # _____			
Reason _____			
<input checked="" type="checkbox"/> an INCREASED USE (includes increase in flow, increase in the number of effluent characteristics or the number of pollutants or increase in the amount of the effluent characteristics)			
Permit # <u>0201235</u>		Reason <u>ADDITIONAL FLOW FROM</u>	
		<u>THE INDUSTRY</u>	
<input type="checkbox"/> a NEW proposed discharge			
<input type="checkbox"/> an EXISTING discharge previously unpermitted			
6. Is there an operator or superintendent responsible for the operation and maintenance of this facility?			
<input checked="" type="checkbox"/> Yes — Name <u>MARK GARDINER</u>			
		Business phone <u>(519) 333-8100</u>	
Operator Certification <u>---</u>		Facility Classification <u>---</u>	

Water Resources Commission  
Municipal Wastewater Discharge Application



← Instructions on Adjacent Page

PLEASE PRINT

1. Facility Name \_\_\_\_\_

2. Facility Location  
✓ Street # and Name \_\_\_\_\_  
City or Village \_\_\_\_\_ County ILLINOIS

3. Facility Mailing Address  
Street # and Name \_\_\_\_\_  
City or Village \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

4. Owner, Mailing Address  
Owner 129 FAIRLANE Phone 635 5921  
Street # and Name \_\_\_\_\_  
City or Village \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
Contact Person JOHN J. JONES Title OWNERS SECRETARY  
✓ Street # and Name 129 FAIRLANE Phone 635 5153  
City or Village \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

5. This permit application is a request for (check box(es)):  
☒ the REISSUANCE of the current permit — permit # M100000000  
☐ a MODIFICATION of the current permit — permit # \_\_\_\_\_  
Reason \_\_\_\_\_  
☐ an INCREASED USE (includes increase in flow, increase in the number of effluent characteristics in the wastewater or increase in the amount of the effluent characteristics)  
permit # \_\_\_\_\_ Reason \_\_\_\_\_  
☐ a NEW, proposed discharge  
☐ an EXISTING discharge, previously unpermitted

6. Is there an operator or superintendent responsible for the operation and maintenance of this facility?  
☐ No ☒ Yes — Name JOHN J. JONES  
Business phone \_\_\_\_\_  
Operator Certification 129 FAIRLANE Facility Classification B


## INSTRUCTIONS FOR COMPLETING PAGE 2

Each numbered item below corresponds to each numbered item on the adjacent page. -----▶

1.
  - a. For Publicly-Owned Treatment Works, enter the number of people living within the service area. For other facilities, enter the number of people who use the facility per day.
  - b. For Publicly-Owned Treatment Works only, list all of the governmental units (cities, townships, etc.) from which sanitary waste is collected for treatment at the facility.
  - c. For facilities other than Publicly-Owned Treatment Works, describe the area the facility serves (examples—mobile home park, condominium, marina, etc.).
  - d. Enter the source(s) of water supply to the people served by this facility.
8. Attach a diagram **and** written description of the wastewater treatment processes.
9. Attach a map that illustrates the location of the facility, etc. This map **MUST** be a United States Geological Survey Quadrangle map (7.5 minute series) original or copy, or other map of comparable detail, scale and quality. **NO HAND-DRAWN MAPS, PLEASE.**
10. Either list in the space provided, or include as an attachment, the names and addresses of all persons who own property adjacent to the facility and discharge(s).

### EXAMPLE

Water Resources Commission  
Municipal Wastewater Discharge Application

  
**DNR**

←—Instructions on Adjacent Page

Facility Name: GREEN ACRES COUNTRY CLUB  
Permit #: W00020012

**PLEASE PRINT**

7. Service Area

a. Number of people served by this facility: 150

b. List the governmental unit(s) within the service area of this facility

\_\_\_\_\_

\_\_\_\_\_

c. Describe the area this facility serves: GOLF COURSE, RESTAURANT, HOTEL

\_\_\_\_\_

d. List the source(s) of water supply: PUBLIC WELL

\_\_\_\_\_

8. Flow Diagram

Provide a flow diagram and narrative, with this application, of the wastewater treatment processes. Indicate all wastewater flows including: return flows, sludge (waste & return) and effluent flows. Also indicate all flow meter and chemical feed locations and discharge points. ATTACH THIS INFORMATION TO THIS APPLICATION

9. Map

Provide a map, with this application, illustrating the location of the wastewater treatment facility, discharge point(s), nearby surface water bodies, water supply wells and any groundwater monitoring wells. This map MUST be a United States Geological Survey Quadrangle map (7.5 minute series) or other map of comparable detail, scale and quality. The minimum area this illustration should encompass is approximately 1 mile from the property boundaries. ATTACH THIS MAP TO THIS APPLICATION

10. List names and mailing address of all property owners adjacent to the wastewater treatment facility

GEORGE ANDERSON 2014 GLADWIN HWY. PALMER, MI 48110	ROBERT JONES 2122 GLADWIN HWY. PALMER, MI 48110	JACK EVANS 1420 NICKLAUS RD. PALMER, MI 48110
--	---	---

**Water Resources Commission  
Municipal Wastewater Discharge Application**



←—Instructions on Adjacent Page

Facility Name: \_\_\_\_\_  
PERMIT #: \_\_\_\_\_

**PLEASE PRINT**

**7. Service Area**

- a. Number of people served by this facility 5000
- b. List the governmental unit(s) within the service area of this facility  
\_\_\_\_\_  
\_\_\_\_\_
- c. Describe the area this facility serves INDUSTRIAL - WAREHOUSES  
MOBILE, GAS STATIONS, SMALL SHOP, RESIDENTIAL - AREA
- d. List the source(s) of water supply WELL

**8. Flow Diagram**

Provide a flow diagram and narrative, with this application, of the wastewater treatment processes. Indicate all wastewater flows including: return flows, sludge (waste & return) and grit flows. Also indicate all flow meter and chemical feed locations and discharge points. ATTACH THIS INFORMATION TO THIS APPLICATION.

**9. Map**

X Provide a map, with this application, illustrating the location of the wastewater treatment facility, discharge point(s), nearby surface water bodies, water supply wells and any groundwater monitoring wells. This map **MUST** be a United States Geological Survey Quadrangle map (7.5 minute series) or other map of comparable detail, scale and quality. The minimum area this illustration should encompass is approximately 1 mile from the property boundaries. ATTACH THIS MAP TO THIS APPLICATION

**10. List names and mailing address of all property owners adjacent to the wastewater treatment facility.**

1. [illegible] [illegible]  
2. [illegible] [illegible]  
3. [illegible] [illegible]  
4. [illegible] [illegible]

# INSTRUCTIONS FOR COMPLETING PAGE 3

Each numbered item below corresponds to each numbered item on the adjacent page. —————▶

11. This page requests detailed information about the outfall(s) location, frequency of discharge and volume of effluent discharged. If there is more than one outfall from which treated wastewater discharges, additional copies of page 3 should be made—one page for each outfall. "Outfall" in this section refers to any discharge point from which **treated** wastewater passes. This includes outfalls from the treatment facility, retention basins, equalization basins, underdrains, etc.
  - a. Identify the outfall by number and location (refer to current NPDES permit, if applicable, for outfall numbers).
  - b. Identify the immediate drain, creek, river or lake into which the outfall discharges.
  - c. If your facility discharges 1 to 7 days a week all year long, then check YES. If your facility discharges for only a few weeks at a time, then check NO and list the specific dates needed for the discharge.
  - d. Indicate the approximate number of hours per day and the number of days per year that a discharge occurs.
  - e. Enter the annual average design flow, in million gallons per day (MGD), that the facility is designed to treat. For seasonal discharges only, **also** enter the total volume of wastewater the facility was designed to discharge per year, in million gallons per year (MGY).
  - f. Enter the expected flows that this facility will discharge through the life of this permit (5 years is the maximum life of an NPDES permit).

## EXAMPLE

Water Resources Commission Municipal Wastewater Discharge Application		DNR	
← Instructions on Adjacent Page		Facility Name: VERMONT CITY WAST. PERMIT #: M0007145	
<b>PLEASE PRINT</b>			
11. Discharge Flow			
Please provide the information below for each outfall from which treated wastewater discharges (main outfall(s), retention basins, underdrains, etc.). Make additional copies of this blank page if necessary, and complete one for each outfall.			
a. Outfall #:	001	Location:	CUTIPPOGA
	1/2 mi. of the S. 1/4, Section 1, Town 2, Range 1, S. 1/2		
b. Name of water receiving the discharge:	CUTIPPOGA RIVER		
c. Does the discharge from this outfall occur year-round?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No — list the seasonal discharge period(s): from MAR. 15 through DEC. 30 from NOV. 1 through DEC. 15 from DEC. 1 through DEC. 15 from — through —		
d. How often is there a discharge from this outfall (yearly average)?	hrs/day: 20 days/year: 20		
e. Facility Design Flow — annual average design flow	0.075 (MGD)		
	annual total (seasonal dischargers only)		
f. Expected Discharge Flow — annual average flow	0.07 (MGD)		
(provide what you know or can obtain)	weekly maximum flow: 0.1 (MGD) daily maximum flow: 1.0 (MGD) 2-hour maximum flow: (MGD) maximum dry weather flow: (MGD) maximum wet weather flow: (MGD)		
	Continuous Dischargers (daily average discharge flows)	Seasonal Dischargers (daily maximum discharge flows)	
January	— (MGD)	— (MGD)	
February	— (MGD)	— (MGD)	
March	— (MGD)	0.5 (MGD)	
April	— (MGD)	1.0 (MGD)	
May	— (MGD)	— (MGD)	
June	— (MGD)	— (MGD)	
July	— (MGD)	— (MGD)	
August	— (MGD)	— (MGD)	
September	— (MGD)	— (MGD)	
October	— (MGD)	— (MGD)	
November	— (MGD)	0.5 (MGD)	
December	— (MGD)	0.5 (MGD)	

# Water Resources Commission

## Municipal Wastewater Discharge Application



←—Instructions on Adjacent Page

Facility Name:  
PERMIT #:

**PLEASE PRINT**

### 11. Discharge Flow

Please provide the information below for **each** outfall from which treated wastewater discharges (main outfall(s), retention basins, underdrains, etc.). Make additional copies of this blank page, if necessary, and complete one for each outfall.

a. Outfall #: 001 Location: County Alcona

N W ¼ of the N W ¼, Section 3, Town 1 N, Range 1 1 N

b. Name of water receiving the discharge Kalamazoo River

c. Does the discharge from this outfall occur year-round?

☒ Yes ☐ No — list the seasonal discharge period(s):

from \_\_\_\_\_ through \_\_\_\_\_; from \_\_\_\_\_ through \_\_\_\_\_

from \_\_\_\_\_ through \_\_\_\_\_; from \_\_\_\_\_ through \_\_\_\_\_

d. How often is there a discharge from this outfall (yearly average)?

hrs/day 24 days/year 365

e. Facility Design Flow — annual average design flow 1.3 (MGD)

annual total (seasonal dischargers only) \_\_\_\_\_ (MGY)

f. Expected Discharge Flow — annual average flow .545 (MGD)

(provide what you know or can obtain) weekly maximum flow \_\_\_\_\_ (MGD)

daily maximum flow .622 (MGD)

2-hour maximum flow \_\_\_\_\_ (MGD)

maximum dry weather flow \_\_\_\_\_ (MGD)

maximum wet weather flow \_\_\_\_\_ (MGD)

	Continuous Dischargers (daily average discharge flows)	Seasonal Dischargers (daily maximum discharge flows)
January	<u>.330</u> (MGD)	_____ (MGD)
February	<u>.335</u> (MGD)	_____ (MGD)
March	<u>.622</u> (MGD)	_____ (MGD)
April	<u>.624</u> (MGD)	_____ (MGD)
May	<u>.605</u> (MGD)	_____ (MGD)
June	<u>.521</u> (MGD)	_____ (MGD)
July	<u>.542</u> (MGD)	_____ (MGD)
August	<u>.545</u> (MGD)	_____ (MGD)
September	<u>.540</u> (MGD)	_____ (MGD)
October	<u>.540</u> (MGD)	_____ (MGD)
November	<u>.540</u> (MGD)	_____ (MGD)
December	<u>.540</u> (MGD)	_____ (MGD)

Each numbered item below corresponds to each numbered item on the adjacent page. —————▶

12. For existing facilities, provide effluent sampling results on **ALL** the parameters listed. For proposed facilities, provide estimates of expected wastewater characteristics on **ALL** the parameters listed. The only exception is that either BOD<sub>5</sub> or Carbonaceous BOD<sub>5</sub> information is needed, not both. Add other parameters to this list if they are available. We also need to know the number of analyses used to arrive at these results. Additional copies of page 4 should be made—one page for each outfall.

Please note the following—avg means average; max means maximum; min means minimum; % removal refers to the percentage of the pollutant removed by the facility treatment processes; avg min means average of the minimum values reported for that parameter; avg max means average of the maximum values reported for that parameter.

**Any toxic pollutants known or believed to be present in the discharge must be sampled for.** Sampling results for toxics collected within the past 3 years, **MUST** be included with this application—either in the spaces provided on page 4 or as attachment to this application. If this data has been submitted to the DNR previously then simply indicate the date and the person it was submitted to. **If this data has not been collected or submitted, then it is required with the submittal of this application.** (Most toxic pollutants, though not all, are listed on the Michigan Critical Materials Register. The Michigan Critical Materials Register is available from the Surface Water Quality Division.)

The results must be provided whether or not a particular pollutant was detected. It's as important to know what is in the effluent as well as what is not in the effluent. **REMEMBER**—Do not ever report ZERO when recording sample results. Always report an undetectable result as less than the level of detection (LOD). For example, if the LOD is 0.5 ug/l and no amount of the parameter is detected, then the proper way to report this is "less than 0.5 ug/l". When calculating an average, use ½LOD in the calculation-not ZERO or 0.5.

### EXAMPLE

[illegible]






# INSTRUCTIONS FOR COMPLETING PAGE 5

Each numbered item below corresponds to each numbered item on the adjacent page. —————▶

13. If a biological test for acute or chronic toxicity has been conducted on your effluent or the receiving water near your effluent, indicate what test was conducted, when it was conducted and who conducted it.
14. Indicate if the wastewater treatment facility receives any **non-sanitary** wastewater from any industries or commercial establishments. This non-sanitary wastewater refers to water-carried wastes **other** than human body and household wastes.  
  
If no Industrial Pretreatment Program is currently required, supply the information requested—(1) the estimated volume; (2) the type of wastewater(s) received i.e. process industrial wastewater, contact cooling water, noncontact cooling water, etc.; (3) Describe the quality of this non-sanitary wastewater. List or attach available sampling results, or other information, illustrating the quality of the non-sanitary wastewater received.
15. Indicate if there is any step in the treatment process that utilizes a lagoon for storing or treating wastewater, or uses spray irrigation or any other process where wastewater contacts the ground surface.
16. Indicate if there are any lift or pump stations used in the transportation of wastewater to this facility. Attach a list or map that describes or illustrates, respectively, the location of each lift station.

## EXAMPLE

<p>Water Resources Commission Municipal Wastewater Discharge Application</p> <p>← Instructions on Adjacent Page</p>	
<p>Facility Name: <u>JASPER WTP</u> Permit #: <u>W0005879</u></p>	
<p><b>PLEASE PRINT</b></p>	
<p>13. Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been conducted on your effluent(s) and/or receiving water in the vicinity of your discharge?</p> <p><input type="checkbox"/> No</p> <p><input checked="" type="checkbox"/> Yes — Identify what test(s) was conducted, the dates it was conducted, who conducted it and briefly summarize the results. <u>ACUTE TESTS CONDUCTED BY DNR 3/15/84</u> <u>10/15/84. CONCLUSION: USE OF EFFLUENT IS NOT TOXICALLY HAZAR</u></p>	
<p>14. Industrial and Commercial Sources</p> <p>a. Does your facility receive any non-sanitary wastewater from any industrial or commercial establishments?</p> <p><input type="checkbox"/> No — Continue below to item 15.</p> <p><input checked="" type="checkbox"/> Yes — Continue below to item 3.</p> <p>b. Is an Industrial Pretreatment Program currently required by the Michigan Department of Natural Resources?</p> <p><input type="checkbox"/> Yes — Continue below to item 15.</p> <p><input checked="" type="checkbox"/> No — (1) Estimate the average volume of non-sanitary wastewater received by your facility. <u>100,000</u> gallons/day</p> <p>(2) Describe the type of non-sanitary wastewater(s) received by your facility. <u>WTS IS NONCONTACT COOLING WATER. 10% IS PROCESS WASTEWATER FROM AUTOMOTIVE BEARING MANUFACTURING</u></p> <p>(3) Describe what is known about the quality of this non-sanitary wastewater. Include sampling results, if available. <u>LEAVES INDUSTRY 3-30 W/1 NICKEL TO 10/1 COPPER</u></p>	
<p>15. Do your treatment facility processes include any wastewater stabilization or storage lagoons, spray irrigation or other processes where wastewater contacts the ground surface?</p> <p><input type="checkbox"/> No</p> <p><input checked="" type="checkbox"/> Yes — Describe what ground surface contact occurs. <u>ONE 4 ACRE LAGOON FOLLOWING FINAL CLARIFICATION USED FOR PRECIPITATION</u></p>	
<p>16. Lift Stations</p> <p>Are there any lift stations used for transporting wastewater to the treatment facility?</p> <p><input type="checkbox"/> No</p> <p><input checked="" type="checkbox"/> Yes — Provide a list or map, with this application, describing or illustrating the location of each lift station.</p>	

**Water Resources Commission**  
**Municipal Wastewater Discharge Application**



←—Instructions on Adjacent Page

Facility Name: \_\_\_\_\_

PERMIT #: \_\_\_\_\_

**PLEASE PRINT**

13. Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been conducted on your effluent(s) and/or receiving water in the vicinity of your discharge?

☐ No

- ☒ Yes — Identify what test(s) was conducted, the date(s) it was conducted, who conducted it and briefly summarize the results. ROUTE 1 - TEST - DONE ON

WILSON ASSOCIATES INC OF BIRMINGHAM AL.

TEST RESULTS - NO ACUTE TOXICITY OBSERVED

ROUTE 1 - TEST - DONE ON 10/1/88

14. Industrial and Commercial Sources

- a. Does your facility receive any **non-sanitary** wastewater from any industrial or commercial establishments?

☐ No — Continue below to item 15.

☒ Yes — Continue below to item b.

- b. Is an Industrial Pretreatment Program currently required by the Michigan Department of Natural Resources?

☒ Yes — Continue below to item 15.

☐ No — (1) Estimate the average volume of non-sanitary wastewater received by your facility.

\_\_\_\_\_ gallons/day

(2) Describe the type of non-sanitary wastewater(s) received by your facility. \_\_\_\_\_

(3) Describe what is known about the quality of this non-sanitary wastewater. Include sampling results, if available. \_\_\_\_\_

15. Do your treatment facility processes include any wastewater stabilization or storage lagoons, spray irrigation or other processes where wastewater contacts the ground surface?

☒ No

☐ Yes — Describe what ground surface contact occurs. \_\_\_\_\_

16. Lift Stations

Are there any lift stations used for transporting wastewater to the treatment facility?

☐ No

☒ Yes — Provide a list or map, with this application, describing or illustrating the location of each lift station.

SEE LIST OF LIFT STATIONS

# INSTRUCTIONS FOR COMPLETING PAGE 6

Each numbered item below corresponds to each numbered item on the adjacent page. —————▶

17. a. Indicate if the sanitary sewer collection system is totally separated from the storm water sewer system or if they are combined. If they are combined, estimate what percentage of the sanitary sewer system is combined.
- b. If there are any outfalls at the treatment facility or along the collection system from which discharges of **untreated** wastewater occurs, then this item needs to be filled out. This would include an outfall from which a bypass of raw sewage to a river occurs during a mechanical or power failure at a lift station or at the treatment facility. Another example would be an outfall for a combined sewer overflow. (If there are more than 3 outfalls, make additional copies of this blank page.)

First identify the outfall number (refer to your current NPDES permit, if applicable, for outfall numbers). Describe the type of outfall such as plant bypass, combined sewer overflow, pump station overflow, etc. Then, for each outfall, provide the following:

- (1) Location by township coordinates and location description, such as proximity to a street, bridge, etc.
- (2) Identify the receiving water into which the outfall discharges. Identify the immediate drain, creek, river or lake.
- (3) Information describing the conditions that result in this discharge (such as power failure, excessive rain, etc.).
- (4) Approximate number of days per year, hours per day and gallons per hour that the discharge occurs.

## EXAMPLE

Water Resources Commission  
Municipal Wastewater Discharge Application

← Instructions on Adjacent Page

PLEASE PRINT

Facility Name: WESTPORT WWSL  
PERMIT #: W20054829

**DNR**

17. Bypasses and Combined Sewer Overflows

- a. Is the sanitary sewer collection system totally separated from the storm sewer system or is any part of it combined?
  - ☐ Separated — Continue below to item b.
  - ☒ Combined — Estimate what percentage of the sanitary sewer system is combined  
\_\_\_\_\_ %
- b. Are there any raw sewage bypass outfalls or combined sewer overflows (either at the facility or along the collection system)?
  - ☐ No — Continue to next page, item 18.
  - ☒ Yes — Provide the requested information below. Make additional copies of this blank page, if there are more than 3 outfalls.

OUTFALL # 002 Type PLANT BYPASS

- (1) Location: County WASHINGTON  
N. 4 1/4 of the N. 2 1/4, Section 0, Town 1, Range 1, E.  
Location description 100 FEET SOUTH OF WALKER ST. BRIDGE
- (2) Name of water receiving the discharge WILSON RIVER
- (3) Describe the conditions that cause a discharge from this outfall  
HEAVY RAINFALL
- (4) What is the average frequency and volume of discharges from this outfall?  
days/year 15 hours/day 3 gallons/hour 100

OUTFALL # 003 Type COMBINED SEWER OVERFLOW

- (1) Location: County WASHINGTON  
S. 4 1/4 of the S. 2 1/4, Section 1, Town 1, Range 1, E.  
Location description 150 FEET WEST OF CENTER RD. & WALKER ST. INTERSECTION
- (2) Name of water receiving the discharge WILSON RIVER
- (3) Describe the conditions that cause a discharge from this outfall  
HEAVY RAINFALL
- (4) What is the average frequency and volume of discharges from this outfall?  
days/year 5 hours/day 7 gallons/hour 100

OUTFALL # \_\_\_\_\_ Type \_\_\_\_\_

- (1) Location: County \_\_\_\_\_  
\_\_\_\_\_ % of the \_\_\_\_\_ 1/4, Section \_\_\_\_\_, Town \_\_\_\_\_, Range \_\_\_\_\_  
Location description \_\_\_\_\_
- (2) Name of water receiving the discharge \_\_\_\_\_
- (3) Describe the conditions that cause a discharge from this outfall \_\_\_\_\_
- (4) What is the average frequency and volume of discharges from this outfall?  
days/year \_\_\_\_\_ hours/day \_\_\_\_\_ gallons/hour \_\_\_\_\_

## Municipal Wastewater Discharge Application



←—Instructions on Adjacent Page

Facility Name: \_\_\_\_\_

PERMIT #: \_\_\_\_\_

**PLEASE PRINT**

**17. Bypasses and Combined Sewer Overflows**

- a. Is the sanitary sewer collection system totally separated from the storm sewer system or is any part of it combined?

☒ Separated — Continue below to item b.

☐ Combined — Estimate what percentage of the sanitary sewer system is combined \_\_\_\_\_ %

- b. Are there any raw sewage bypass outfalls or combined sewer overflows (either at the facility or along the collection system)?

☒ No — Continue to next page, item 18.

☐ Yes — Provide the requested information below. Make additional copies of this blank page, if there are more than 3 outfalls.

OUTFALL # \_\_\_\_\_ Type \_\_\_\_\_

- (1) Location: County \_\_\_\_\_

\_\_\_\_\_ 1/4 of the \_\_\_\_\_ 1/4, Section \_\_\_\_\_, Town \_\_\_\_\_, Range \_\_\_\_\_

Location description \_\_\_\_\_

- (2) Name of water receiving the discharge \_\_\_\_\_

- (3) Describe the conditions that cause a discharge from this outfall \_\_\_\_\_

- (4) What is the average frequency and volume of discharge(s) from this outfall?

days/years \_\_\_\_\_ hours/day \_\_\_\_\_ gallons/hour \_\_\_\_\_

OUTFALL # \_\_\_\_\_ Type \_\_\_\_\_

- (1) Location: County \_\_\_\_\_

\_\_\_\_\_ 1/4 of the \_\_\_\_\_ 1/4, Section \_\_\_\_\_, Town \_\_\_\_\_, Range \_\_\_\_\_

Location description \_\_\_\_\_

- (2) Name of water receiving the discharge \_\_\_\_\_

- (3) Describe the conditions that cause a discharge from this outfall \_\_\_\_\_

- (4) What is the average frequency and volume of discharge(s) from this outfall?

days/years \_\_\_\_\_ hours/day \_\_\_\_\_ gallons/hour \_\_\_\_\_

OUTFALL # \_\_\_\_\_ Type \_\_\_\_\_

- (1) Location: County \_\_\_\_\_

\_\_\_\_\_ 1/4 of the \_\_\_\_\_ 1/4, Section \_\_\_\_\_, Town \_\_\_\_\_, Range \_\_\_\_\_

Location description \_\_\_\_\_

- (2) Name of water receiving the discharge \_\_\_\_\_

- (3) Describe the conditions that cause a discharge from this outfall \_\_\_\_\_

- (4) What is the average frequency and volume of discharge(s) from this outfall?

days/years \_\_\_\_\_ hours/day \_\_\_\_\_ gallons/hour \_\_\_\_\_

# INSTRUCTIONS FOR COMPLETING PAGE 7

Each numbered item below corresponds to each numbered item on the adjacent page. —————▶

18. a. Indicate whether or not any residuals are produced that require disposal and, if so, where they are disposed of.
- b. Indicate if a Program for Effective Residuals Management has ever been required by the Michigan Department of Natural Resources. If so, indicate if and when it was submitted and approved. (A Program for Effective Residuals Management includes: 1) a management plan, 2) an inventory of residuals, 3) an analysis of the residuals, 4) a monitoring program, 5) land application information, and 6) groundwater information.)
19. Indicate if an Alternative Power Source Report has ever been required by the Michigan Department of Natural Resources. If so, indicate if and when it was submitted and approved. (An Alternative Power Source Report (1) identifies all essential treatment equipment and pumping stations utilized for transportation and treatment of wastes collected within the service area of the facility governed by the wastewater discharge permit, and (2) documents the alternative power source, or other means of providing continuity of service during periods of power failure, for each essential item identified in (1) above.)
20. Briefly describe the history of this wastewater treatment facility (i.e. when was it first constructed, what improvements have been made, when were they made, why were they made, future plans for upgrading, etc.).

## EXAMPLE

Water Resources Commission Municipal Wastewater Discharge Application		DNR	
← Instructions on Adjacent Page		Facility Name: LAKEWOOD CONDO'S UNIT PERMIT #: WTD031008	
PLEASE PRINT			
18. a. Are there any residuals (solids, sludges, ash, grit, etc.) produced as a result of wastewater treatment that require disposal?			
<input type="checkbox"/> No — Continue below to item 19			
<input checked="" type="checkbox"/> Yes — Briefly describe the type of residual(s) and its ultimate disposal:			
GRIT — TAKEN TO LANDFILL			
SLUDGE — APPLIED TO NEARBY FARM FIELDS IN ACCORDANCE WITH			
APPROVED PLAN			
b. Has a Program for Effective Residuals Management been required, submitted and approved by the Michigan Department of Natural Resources (check appropriate boxes)?			
YES NO			
Required	<input checked="" type="checkbox"/>	<input type="checkbox"/>	— if No, continue below to item 19
Submitted	<input checked="" type="checkbox"/>	<input type="checkbox"/>	— date submitted SEPT. 3, 1984
Approved	<input checked="" type="checkbox"/>	<input type="checkbox"/>	— date approved NOV. 15, 1984
19. Has an Alternative Power Source Report been required, submitted and approved by the Michigan Department of Natural Resources (check appropriate boxes)?			
YES NO			
Required	<input checked="" type="checkbox"/>	<input type="checkbox"/>	— if No, continue below to item 20.
Submitted	<input checked="" type="checkbox"/>	<input type="checkbox"/>	— date submitted JAN. 20, 1987
Approved	<input checked="" type="checkbox"/>	<input type="checkbox"/>	— date approved MAR. 16, 1987
20. Summarize the history of the facility with regards to when it was originally constructed, what, when and why any facility improvements were made, future plans for upgrading and anything else you wish to include.			
THE LAKEWOOD CONDOMINIUM'S WASTEWATER TREATMENT FACILITY WAS ORIGINALLY A 2-CELLED STABILIZATION LAGOON BUILT IN 1962. IN 1980, THEY WERE REPLACED BY A PACKAGE TREATMENT PLANT. IN 1986, DECHLORINATION EQUIPMENT IS EXPECTED TO BE INSTALLED.			

Water Resources Commission  
Municipal Wastewater Discharge Application



← Instructions on Adjacent Page

Facility Name:

PERMIT #:

PLEASE PRINT

18. a. Are there any residuals (solids, sludges, ash, grit, etc.) produced as a result of wastewater treatment that require disposal?

☐ No — Continue below to item 19.

☒ Yes — Briefly describe the type of residual(s) and its ultimate disposal \_\_\_\_\_

GRIT - TAKEN TO LANDFILL

Sludges - EITHER LAKE APPLIED TO FARMERS FIELDS

OR DRIED AND TAKEN TO LANDFILL.

- b. Has a Program for Effective Residuals Management been required, submitted and approved by the Michigan Department of Natural Resources (check appropriate box(es))?

YES NO

Required ☒ ☐ — if No, continue below to item 19.

Submitted ☒ ☐ — date submitted 1-1-92

Approved ☒ ☐ — date approved 1-1-92

19. Has an Alternative Power Source Report been required, submitted and approved by the Michigan Department of Natural Resources (check appropriate box(es))?

YES NO

Required ☐ ☐ — if No, continue below to item 20.

Submitted ☐ ☐ — date submitted \_\_\_\_\_

Approved ☐ ☐ — date approved \_\_\_\_\_

20. Summarize the history of the facility with regards to when it was originally constructed, what, when and why any facility improvements were made, future plans for upgrading and anything else you wish to include.

SEE EXHIBIT SHEET.

**Water Resources Commission**  
**Municipal Wastewater Discharge Application**

←---Instructions on Adjacent Page



Facility Name: City of Plainwell  
PERMIT #: MI 0020494

**PLEASE PRINT**

**21. Application Authorization**

Federal and State statutes provide for severe penalties for submitting false information on this application form.

The State of Michigan's Water Resources Commission's Act 245, Public Acts of 1929, as amended, Section 10(2) states: "A person who discharges a substance into the waters of the state contrary to the provisions of this act, or contrary to the provisions of a permit, order, rule or stipulation of the commission, or who makes a false statement, representation, or certification in an application for, or form pertaining to a permit, or in a notice or report required by the terms and conditions of an issued permit, or who renders inaccurate a monitoring device or record required to be maintained by the commission, is guilty of a misdemeanor and shall be fined not less than \$2,500.00 nor more than \$25,000.00 for each violation."

Section 309(c)(4) of the Federal Clean Water Act of 1977 (P.L. 95-217), as amended, provides that "Any person who knowingly makes any false material statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under this Act or who knowingly falsifies, tampers with, or renders inaccurate any monitoring device or method required to be maintained under this Act, shall upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than 2 years, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment shall be by a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than 4 years, or by both."

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature Jerry R. Lawrence  
Print Name JERRY R. LAWRENCE Title WW.T.P. Superintendent  
Representing CITY OF PLAINWELL Date 3/29/95

Where the applicant does not represent a municipality, the following certification of the local governmental representative is required.

"This is to certify that I am aware of and recognize the responsibilities of the municipality as set forth in Section 6(b) of the Michigan Water Resources Commission Act 245 of 1929."

Signature Richard E. Runnels  
Print Name RICHARD E. RUNNELS Title CITY ADMINISTRATOR  
Representing CITY OF PLAINWELL Date 3/29/95



## PLANT FLOWS

Raw influent comes into the primary clarifiers then it goes to the RBC's. From there it goes to the secondary clarifiers into the contact tank and then to the Kalamazoo River.

Raw sludge is pumped from the primary clarifiers to digesters 1 and 2. Secondary sludge is pumped back to the head of the plant.

Digested sludge is transferred from 1 and 2 digesters over to the sludge storage tank. Supernatant is drawn off here and returned to the head of plant.

Grit is taken out at the grit building and the return goes to the head of the plant.

RECEIVED

BY \_\_\_\_\_

FEB 28 1995

CITY OF PLAINWELL  
WWTP

*for New Plant*  
*1/21/95*  
*acc*

City of Plainwell  
141 North Main Street  
Plainwell MI 49080

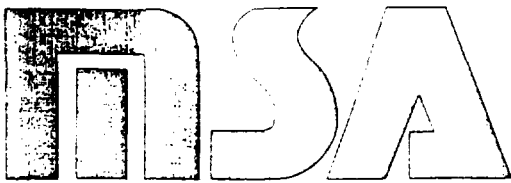
Report Date: 02/22/95  
Lab Number: 950200258  
Date Received: 02/09/95  
Client ID: 60888

Attention: Mr. Donald Murdick

Sample ID: Effluent  
02/08/95  
COC No: 8575

\* Results reported with "U" flag indicate the parameter was analyzed for but not detected in the sample above the detection limit.

Parameter	Result	Units
Alkalinity, Total	230	mg/l
Calcium	76	mg/l
Hardness, Total	290	mg/l
Magnesium	24	mg/l



MID-STATE ASSOCIATES, INC.

1230 Lange Court  
Baraboo, WI 53913  
608-356-2760  
800-228-3012  
FAX: 608-356-2766

---

Environmental & Laboratory Services

22 July 1994  
0706-III.let

Mr. Don Murdick  
City of Plainwell  
141 North Main Street  
Plainwell, MI 49080

Dear Mr. Murdick:

Enclosed please find the summary report for the acute toxicity tests performed in July 1994. Test results indicated the samples **were not** acutely toxic to any of the test species. If you have any questions on these results, please feel free to contact me at 800-228-3012.

Sincerely,

MID-STATE ASSOCIATES, INC.

A handwritten signature in black ink, appearing to read 'ET Korthals', with a stylized flourish at the end.

Eric T. Korthals  
Manager,  
Life Sciences

Enclosure

**Summary Report: Results of  
Acute Toxicity Tests Performed on  
Effluent Samples from the  
Plainwell WWTP, Plainwell, MI**

Performed for:  
City of Plainwell  
141 North Main Street  
Plainwell, MI 49080

Prepared by:  
Mid-State Associates, Inc.  
1230 Lange Court  
Baraboo, WI 53913

6 - 10 July 1994

Mid-State Report No.: 0706-III

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## 1.0 INTRODUCTION

A study was conducted by Mid-State Associates, Inc. (MSA), Baraboo, WI, to evaluate the acute toxicity of effluent samples from the Plainwell Wastewater Treatment Plant, Plainwell, MI (NPDES permit number: MI0020494).

Acute toxicity was evaluated by performing 48-h non-renewal and 96-h static, renewal acute toxicity tests. The objective of these tests was to determine the wastewater concentration that was estimated to effect (i.e., immobilize/mortality) 50% of the test organisms during a 48- or 96-h period of exposure (i.e., EC50/LC50).

## 2.0 METHODS

### 2.1 SAMPLE DESCRIPTION

Plainwell municipal personnel were responsible for collecting all 24-h composite samples of effluent. Samples were stored in collapsible plastic containers and delivered to the laboratory on ice. Routine log-in procedures were followed for all effluent samples prior to test initiation. Effluent samples were assigned MSA log numbers and the sample temperature and pH documented upon receipt in the laboratory. The samples were stored at between 0 and 4°C until needed in testing. Sample collection and arrival information is summarized below.

Sample #	Collection Date/Time	Arrival Date/Time	Temperature	pH	Log #
1	7-04 to 7-05-94/0730 h	7-06-94/1350 h	0.3°C	7.4	7/6-III
2	7-06 to 7-07-94/0730 h	7-08-94/1130 h	0.1°C	7.4	7/8-III

### 2.2 TEST ORGANISMS

Test organisms for the acute toxicity tests were neonates of the waterflea, Daphnia magna, and juvenile fathead minnows, Pimephales promelas. All organisms were obtained from cultures maintained by MSA.

Original stock cultures of D. magna were obtained from cultures maintained by MDNR, Lansing, MI, and the University of Wyoming, Laramie, WY. These animals are now cultured in the MSA aquatic toxicology laboratory. D. magna were maintained in water from an on-site well. The temperature and photoperiod of the culture facilities were 20 ±



2°C and 16L:8D, respectively. D. magna mass cultures served as the source of neonates in this acute toxicity test (MSA Mass Culture #: WW061794). Neonates used in this test were  $\leq$  24-h old. Only offspring from the third or later broods were used in testing.

Original stock cultures of P. promelas were obtained from cultures maintained by USEPA, Newtown Facility, Cincinnati, OH. P. promelas were maintained by MSA in water from an on-site well. The temperature and photoperiod of the culture facilities were  $25 \pm 2^\circ\text{C}$  and 16L:8D, respectively. Juvenile fathead minnows used in the acute toxicity test were 43 to 46-d old (MSA hatch date: 5/22 to 5/25/94).

## 2.3 DILUTION WATER

Moderately-hard dilute mineral water served as the control and dilution water. The control water was prepared by diluting mineral water with Type I (ASTM) deionized water. The dilute mineral water was aerated at least overnight to facilitate mixing and to remove carbonation.

## 2.4 TOXICITY TEST METHODS

The acute toxicity tests were performed in accordance with methods specified by the MDNR and Weber et al. (1991). Laboratory procedures and test conditions are outlined in Tables 1 and 2.

#### 2.4.1 48-h D. magna Acute Toxicity Test

The 48-h D. magna static, non-renewal acute toxicity test was performed in 30-mL polystyrene plastic cups (Comet Products, Chelmsford, MA). Test organisms were exposed to the control solution and to the following effluent concentrations: 6.25, 12.5, 25, 50 and 100% effluent.

Each concentration was performed in quadruplicate with five organisms per replicate. Each test vessel contained 20 mL of test solution. The D. magna acute toxicity test was initiated at 1630 h on 6 July 1994 and terminated on 8 July 1994 at 1430 h. As described in Section 2.1, samples were collected from 4 July to 7 July 1994. The first sample was used to initiate the test.

The test incubator was maintained at a temperature of  $20 \pm 1^{\circ}\text{C}$  and photoperiod of 16L:8D. Organisms were examined at approximately 24-h intervals following test initiation. Test organism death and immobilization served as the indicators of toxicity. The criterion used to establish lethality was failure to respond to gentle prodding (Peltier and Weber 1985). Immobilization was defined as the inability to maintain position in the water column for 5 seconds after stimulation.

#### 2.4.2 96-h P. promelas Acute Toxicity Test

The 96-h P. promelas static, renewal acute toxicity test was performed in 1-L borosilicate glass beakers. Test organisms were exposed to the control solution and to the following effluent concentrations: 6.25, 12.5, 25, 50 and 100% effluent.

Each concentration was performed in duplicate with ten organisms per replicate. Each test vessel contained 500 mL of test solution. The P. promelas acute toxicity test was initiated at 1645 h on 6 July 1994 and terminated on 10 July 1994 at 1445 h. As described in Section 2.1, samples were collected from 4 to 7 July 1994. The first sample was used to initiate the test and for test solution renewal on Day 2. The second sample was used for test solution renewal on Days 3 and 4.

The test incubator was maintained at a temperature of  $20 \pm 1^{\circ}\text{C}$  and photoperiod of 16L:8D. Organisms were examined at approximately 24-h intervals following test initiation. Test solutions were renewed daily during this test by siphoning out old test solutions. Fresh test solutions were then gently poured into test vessels. Test organism death and immobilization served as the indicators of toxicity. The criteria used to establish lethality were failure to respond to gentle prodding (Peltier and Weber 1985) or lack of opercular movement. The mean wet weight of fathead minnows used in this toxicity test equaled 17.9 mg/fish ( $n = 5$ ). The loading rate of fish in this test equaled 0.36 g/L.

#### 2.4.3 Chemical Analyses

Alkalinity was determined by EPA Method 310.2 (EPA 1983). Total hardness was determined by EPA Method 130.1. Dissolved oxygen concentrations were measured with a YSI Model 57 DO meter (Yellow Springs Instruments Co., Yellow Springs, OH). A digital conductivity meter (VWR Instruments, Philadelphia, PA) was used to measure conductivity. The pH values were determined with an Accumet Model 910 pH meter (Fisher Instruments, Pittsburgh, PA). Total ammonia was measured by EPA Method 350.1. Total residual chlorine (TRC) was measured by Method 4500-Cl (APHA 1989).

### 3.0 RESULTS

#### 3.1 48-H D. magna ACUTE TOXICITY TEST

Test organism mortality observations performed during this acute toxicity test are summarized in Table 3. No test organism population mortality/immobilization was observed in the control or effluent exposures by test termination. The 48-h EC50 value for this test was not calculable (i.e., >100% effluent). Basic water chemistry analyses for this acute toxicity test are summarized in Table 4 and 7.

#### 3.2 96-H P. promelas ACUTE TOXICITY TEST

Test organism mortality observations performed during this acute toxicity test are summarized in Table 5. No test organism population mortality was observed in the control or effluent exposures by test termination. The 96-h LC50 value for this test was not calculable (i.e., >100% effluent). Basic water chemistry analyses for this acute toxicity test are summarized in Tables 6 and 7.

#### 4.0 SUMMARY

In summary, acute toxicity tests were performed on effluent samples from the Plainwell Wastewater Treatment Plant, Plainwell, MI. The static, renewal acute toxicity tests were initiated on 6 July 1994. Based on the acute toxicity test results, the EC50 and LC50 values were not calculable (i.e., >100% effluent).

## 5.0 QUALITY ASSURANCE

Quality assurance procedures followed in the MSA Aquatic Toxicology Division include the following:

1. Effluents are handled and preserved according to USEPA guidelines (Peltier and Weber 1985).
2. Instruments are calibrated and standardized according to the manufacturer's instructions.
3. Wet chemistry methods used in determining hardness and alkalinity are standardized according to appropriate USEPA methods.
4. Reference toxicity tests were performed to determine the acceptability and sensitivity of test organisms. Sodium chloride is used as the reference toxicant. Reference test control charts are maintained for all test organisms.

Results of sodium chloride reference toxicity tests.

Performed: 7-5-94

Reference Toxicant: NaCl (ACS certified grade, Fisher Scientific)

D. magna 48-h LC50 = 5.46 g/L

Upper Control Limit = 6.12 g/L

Central Tendency = 5.39 g/L

Lower Control Limit = 4.66 g/L

Performed: 7-6-94

Reference Toxicant: NaCl (ACS certified grade, Fisher Scientific)

P. promelas 96-h LC50 = 9.55 g/L

Upper Control Limit = 11.65 g/L

Central Tendency = 9.62 g/L

Lower Control Limit = 7.60 g/L

## 6.0 LITERATURE CITED

- APHA. 1989. Standard Methods for the Examination of Water and Wastewater. 17th ed. Am. Pub. Health Assoc., Washington, D.C.
- EPA. 1983. Methods for the chemical analysis of water and wastes. USEPA, Cincinnati, OH. EPA-600/4-79-020.
- Peltier, W.H. and C.I. Weber. (eds.). 1985. Methods for measuring the acute toxicity of effluents to freshwater and marine organisms. 3rd edition. USEPA, Cincinnati, OH. EPA/600/4-85/013.
- Weber, C.I. et al. (eds.). 1991. Methods for measuring the acute toxicity of effluents to freshwater and marine organisms. 4th edition. USEPA, Cincinnati, OH. EPA/600/4-90/027.



Table 1. SUMMARY OF TEST CONDITIONS:  
Daphnia magna<sup>a</sup>  
 48-h static, non-renewal acute toxicity test

1.	Test temperature	20 ± 1°C
2.	Light quality	Ambient illumination
3.	Light intensity	50 to 100 foot candles
4.	Photoperiod	16L:8D
5.	Test vessel size and type/ solution volume	30-mL polystyrene plastic/20 mL
6.	Number of organisms per vessel	5
7.	Number of replicates	4
8.	Age of test organisms	≤ 24-h old
9.	Aeration	None
10.	Diluent	Moderately-hard dilute mineral water
11.	Test duration	48-h
12.	Effect measured	Mortality/immobilization (EC50)
13.	Chemical parameters measured on effluent	D.O., temp., pH, conductivity, hardness, alkalinity, total ammonia, TRC (initial)
14.	Chemical parameters measured on control, low, mid, and high effluent exposures	D.O., temp., pH, conductivity (initial); D.O., pH (final); temp. (final, only control and low exposure)

<sup>a</sup>Adapted from Weber et al. (1991) and as specified by the MDNR.

Table 2. SUMMARY OF TEST CONDITIONS: Pimephales promelas<sup>a</sup>  
96-h static, renewal acute toxicity test

1.	Test temperature	20 ± 1°C
2.	Light quality	Ambient illumination
3.	Light intensity	50 to 100 foot candles
4.	Photoperiod	16L:8D
5.	Test vessel size and type/ solution volume	1-L borosilicate glass/ 500 mL
6.	Number of organisms per vessel	10
7.	Number of replicates	2
8.	Age of test organisms	43 to 46-d old
9.	Aeration	None
10.	Diluent	Moderately-hard dilute mineral water
11.	Test duration	96-h
12.	Effect measured	Mortality (LC50)
13.	Chemical parameters measured on effluent	D.O., temp., pH, conductivity, hardness, alkalinity, total ammonia, TRC (initial)
14.	Chemical parameters measured on control, low, mid, and high effluent exposures	D.O., temp., pH, conductivity (initial); D.O., pH (final); temp. (final, only control and low exposure)

<sup>a</sup>Adapted from Weber et al. (1991) and as specified by the MDNR.

Table 3. Results of a 48-h Daphnia magna static, non-renewal acute toxicity test conducted on an effluent sample from the Plainwell WWTP, Plainwell, WI. Moderately-hard reconstituted served as the control and diluent in this toxicity test. 6 - 8 July 1994.

Concentration (%)	Total Number of Mortalities <sup>a</sup>		% Mortality at 48 h
	24 h	48 h	
Lab Control	0	0	0
6.25	0	0	0
12.5	0	0	0
25	0	0	0
50	0	0	0
100	0	0	0

<sup>a</sup>Twenty organisms were initially exposed to each test concentration. Concentrations were tested in quadruplicate (5 organisms/replicate). Test vessels = 30-mL disposable, polystyrene plastic cups containing 20 mL/cup.

48-h EC50 value = not calculable (i.e., >100% effluent)

Table 4. Basic water chemistry analyses performed during a 48-h Daphnia magna static, non-renewal acute toxicity test conducted on an effluent sample from the Plainwell WWTP, Plainwell, WI. Moderately-hard reconstituted served as the control and diluent in this toxicity test. 6 - 8 July 1994.

Concentration (%)	pH	Dissolved Oxygen (mg/L)	Temperature (°C)	Conduc- tivity (μmhos/cm)
<b><u>Initial Chemistries</u></b>				
Lab Control	8.3	8.5	21.0	379
6.25	8.3	8.7	21.0	434
25	8.1	8.7	21.0	602
100	7.6	9.0	20.8	1410
<b><u>Final Chemistries</u></b>				
Lab Control	8.1	8.6	20.8	---
6.25	8.2	8.8	19.6	---
25	8.2	8.8	----	---
100	8.2	8.7	----	---

Table 5. Results of a 96-h Pimephales promelas static, renewal acute toxicity test conducted on effluent samples from the Plainwell WWTP, Plainwell, WI. Moderately-hard reconstituted served as the control and diluent in this toxicity test. 6 - 10 July 1994.

Concentration (%)	Total Number of Mortalities <sup>a</sup>				% Mortality at 96 h
	24 h	48 h	72 h	96 h	
Lab Control	0	0	0	0	0
6.25	0	0	0	0	0
12.5	0	0	0	0	0
25	0	0	0	0	0
50	0	0	0	0	0
100	0	0	0	0	0

<sup>a</sup>Twenty organisms were exposed to each test concentration. Concentrations were tested in duplicate (10 organisms/replicate). Test vessels = 1-L borosilicate glass beakers containing 500 mL/beaker.

96-h LC50 = not calculable (i.e., >100% effluent)

Table 6. Basic water chemistry analyses performed during a 96-h Pimephales promelas static, renewal acute toxicity test conducted on effluent samples from the Plainwell WWTP, Plainwell, WI. Moderately-hard reconstituted served as the control and diluent in this toxicity test. 6 - 10 July 1994.

Concentration (%)	pH range	Mean Dissolved Oxygen (mg/L)	Mean Temperature (°C)	Mean Conduc- tivity (μmhos/cm)
<b><u>Initial Chemistries</u></b>				
Lab Control	8.1 - 8.3	8.8	20.0	374
6.25	8.1 - 8.3	8.8	20.5	432
25	8.0 - 8.1	8.9	20.9	619
100	7.4 - 7.6	9.6	20.8	1349
<b><u>Final Chemistries</u></b>				
Lab Control	7.7 - 7.9	7.2	20.4	---
6.25	7.9 - 8.0	7.5	20.4	---
25	7.9 - 8.0	7.8	----	---
100	7.8 - 8.0	7.0	----	---

Table 7. A summary of basic water chemistry analyses performed on effluent samples from the Plainwell WWTP, Plainwell, WI. 6 - 10 July 1994.

Sample Type	Date Sample Received	Alkalinity (mg CaCO <sub>3</sub> /L)	Hardness (mg CaCO <sub>3</sub> /L)	Ammonia (mg N/L)	TRC (mg/L)
Effluent	7/06/94	196	305	1.62	<0.02

Table 7. A summary of basic water chemistry analyses performed on effluent samples from the Plainwell WWTP, Plainwell, WI. 6 - 10 July 1994.

Sample Type	Date Sample Received	Alkalinity (mg CaCO <sub>3</sub> /L)	Hardness (mg CaCO <sub>3</sub> /L)	Ammonia (mg N/L)	TRC (mg/L)
Effluent	7/06/94	186	305	1.62	<0.02
Effluent	7/08/94	173	306	2.02	0.02

Table 7. (continued) MEAN ANALYTICAL DATA

Sample Type	N	Alkalinity (mg CaCO <sub>3</sub> /L)	Hardness (mg CaCO <sub>3</sub> /L)	Ammonia (mg N/L)	TRC (mg/L)
Effluent	2	180	306	1.82	0.02

## 7.0 REPORT REVIEW

MSA Report No.: 0706-III

Report Title: Summary Report: Results of Acute Toxicity Tests Performed on Effluent Samples from the Plainwell WWTP, Plainwell, MI

Performed for: City of Plainwell  
141 North Main Street  
Plainwell, MI 49080

Prepared by: Mid-State Associates, Inc.  
1230 Lange Court  
Baraboo, WI 53913

Investigators: Eric Korthals  
Debbie Wickus  
Kathy Keating

Report Author: gjk/korthals 7-22-94

Reviewed By: Kathryn Korthals



MID-STATE ASSOCIATES, INC.  
BARABOO, WI

PROJECT PLAINWELL  
TEST SPECIES D. magna  
TEST TYPE Acute  
TEST DATE 7/6 ⇒ 7/8/94

	YES	NO
TEST SOLUTION RENEWAL		X

## INVERTEBRATE TEST INFORMATION SHEET

Test Dates:

7/6 - 7/8/94

Effluent/Chemical:

D. m. w. w. w.

Test Organism:

*Ceriodaphnia dubia*☐*Daphnia pulex*☐*Daphnia magna*

MSA: WWO6744

☒

Other

☐

Dilution Water:

Receiving Water

☐

Hard Reconstituted Water

☐

MOD: HARA

10% Dilute Mineral Water

☒

Other

☐

Test Conditions:

Temperature:

 $25 \pm 1^{\circ}\text{C}$ ☐ $20 \pm 1^{\circ}\text{C}$ ☒

Other

☐

Number of Replicates per Concentration:

Number of Organisms per Replicate:

Solution Volume per Test Chamber (mL):

Test Vessel Type:

60-mL plastic cup

☐

30-mL plastic cup

☒

\_\_\_\_-mL beaker

☐

Feeding:

yes

no

Other Information:

infoshtwk1

## 48-HOUR ACUTE TEST

WITH  
*Daphnia magna*

Test Initiation Date:

7-6-44

Project:

PLAINWELL

Day:	0	1	2
Intls:	CE	CE	KK
Time:	1630	0900	1430

ALIVE or UNAFFECTED (circle one)/TOTAL EXPOSED

Test Conc.	A			B			C			D		
	0	24 h	48 h	0	24 h	48 h	0	24 h	48 h	0	24 h	48 h
Lab Ctl	5/5	5/5	5/5	5/5	5/5	5/5	5/5	5/5	5/5	5/5	5/5	5/5
6.25	5/5	5/5	5/5	5/5	5/5	5/5	5/5	5/5	5/5	5/5	5/5	5/5
12.5	5/5	5/5	5/5	5/5	5/5	5/5	5/5	5/5	5/5	5/5	5/5	5/5
25	5/5	5/5	5/5	5/5	5/5	5/5	5/5	5/5	5/5	5/5	5/5	5/5
50	5/5	5/5	5/5	5/5	5/5	5/5	5/5	5/5	5/5	5/5	5/5	5/5
100	5/5	5/5	5/5	5/5	5/5	5/5	5/5	5/5	5/5	5/5	5/5	5/5

Comments:

Project

PENINWELL

Site

Test Species

D. ALIWA

Test Conc.	Parameter	Exposure Day								Mean Chemistry
		1	2	3	4	5	6	7	8	
Lab Control	D.O.	8.5								
	pH	8.3								
	Cond.	379								
	Temp.	21.0								
6.25	D.O.	8.7								
	pH	8.3								
	Cond.	434								
	Temp.	21.0								
25	D.O.	8.7								
	pH	8.1								
	Cond.	602								
	Temp.	21.0								
100	D.O.	9.0								
	pH	7.6								
	Cond.	1410								
	Temp.	20.8								
	D.O.									
	pH									
	Cond.									
	Temp.									
	D.O.									
	pH									
	Cond.									
	Temp.									
	D.O.									
	pH									
	Cond.									
	Temp.									

Technician	LS								
Date	7-6-94								
Time	1630								
Sample	7/6-III								
Log Number									

Project PLAINWATER

Site \_\_\_\_\_

Test Species DUMMYS

Test Conc.	Parameter	Exposure Day								Mean Chemistries
		1	2	3	4	5	6	7	8	
Lab Control	D.O.		8.6							
	pH		8.1							
	Temp.		20.8							
6.25	D.O.		8.8							
	pH		8.2							
	Temp.		19.6							
8.5	D.O.		8.8							
	pH		8.2							
100	D.O.		8.7							
	pH		8.2							
	D.O.									
	pH									
	D.O.									
	pH									
	D.O.									
	pH									

Technician		K/K							
Date		7-8-14							
Time		1435							

Comments:

MID-STATE ASSOCIATES, INC.  
BARABOO, WI

PROJECT PLAINWELL

TEST SPECIES P. PROMELAS

TEST TYPE AUTO

TEST DATE 7/6 -> 7/10/44

	YES	NO
TEST SOLUTION RENEWAL	X	

## VERTEBRATE TEST INFORMATION SHEET

Test Dates:

7/6 → 7/10/94

Effluent/Chemical:

PLAIN WELL

Test Organism:

*Pimephales promelas*

MSA APTM 5/21-5/25/94

*Oncorhynchus mykiss*

Other

Dilution Water:

Receiving Water

Hard Reconstituted Water

MOD HARD

10% Dilute Mineral Water

Other

Test Conditions:

Temperature:

 $25 \pm 1^\circ \text{C}$  $20 \pm 2^\circ \text{C}$  $12 \pm 2^\circ \text{C}$ 

Other

Number of Replicates per Concentration:

Number of Organisms per Replicate:

Solution Volume per Test Chamber (mL):

Test Vessel Type:

1-L glass beaker

600-mL glass beaker

\_\_\_\_-mL glass beaker

Feeding:

yes

no

describe

Other Information:

Loading rate = 0.36g/L

(n=5,  $\bar{x}$  = 17.9 mg/fish)

## 96-HOUR FATHEAD MINNOW ACUTE TOXICITY TEST

Project: PLAINWATER

Site: \_\_\_\_\_

*ALIVE / TOT*

Test Conc.	Rep.	Exposure Day					Total	
		0	1	2	3	4	Mort.	Surv.
LAB CTL	A	10/10	10/10	10/10	10/10	10/10	0%	100%
	B	10/10	10/10	10/10	10/10	10/10		
6.25	A	10/10	10/10	10/10	10/10	10/10		
	B	10/10	10/10	10/10	10/10	10/10		
12.5	A	10/10	10/10	10/10	10/10	10/10		
	B	10/10	10/10	10/10	10/10	10/10		
25	A	10/10	10/10	10/10	10/10	10/10		
	B	10/10	10/10	10/10	10/10	10/10		
50	A	10/10	10/10	10/10	10/10	10/10		
	B	10/10	10/10	10/10	10/10	10/10		
100	A	10/10	10/10	10/10	10/10	10/10		
	B	10/10	10/10	10/10	10/10	10/10		
	A							
	B							

Intls.	10	KK	KK	KK	KK
Time	1645	1440	1355	1110	1445
Date	7-6-94	7-7-94	7-8-94	7-9-94	7-10-94

Comments:



Project

P. PLANKTON

Site

Test Species

P. PLANKTON

Lab	Parameter	Exposure Day								Mean
		1	2	3	4	5	6	7	8	
Control	D.O.	8.5	8.5	8.8	9.2					8.8
	pH	8.3	8.3	8.1	8.3					8.1-8.3
	Cond.	374	363	373	380					374
	Temp.	21.0	19.8	19.4	20.0					20.0
6.25	D.O.	8.7	8.5	8.8	9.4					8.8
	pH	8.3	8.2	8.1	8.1					8.1-8.3
	Cond.	434	432	430	432					432
	Temp.	21.0	21.3	20.5	19.1					20.5
25	D.O.	8.7	8.4	9.0	9.4					8.9
	pH	8.1	8.0	8.0	8.1					8.0-8.1
	Cond.	602	638	620	616					619
	Temp.	21.5	21.5	20.5	20.6					20.9
100	D.O.	8.0	8.3	10.8	10.4					9.6
	pH	7.6	7.4	7.4	7.4					7.4-7.6
	Cond.	1410	1376	1307	1302					1346
	Temp.	20.8	21.7	19.7	20.8					20.8
	D.O.									
	pH									
	Cond.									
	Temp.									
	D.O.									
	pH									
	Cond.									
	Temp.									
	D.O.									
	pH									
	Cond.									
	Temp.									

Technician	CS	KK	KK	KK				
Date	7-6-94	7-7-94	7-8-94	7-9-94				
Time	1630	1445	1320	1105				
Sample	7/6-III	7/6-III	7/8-III	7/8-III				
Log Number								

Project

PLATINUM

Site

Test Species

P. PROMELAS

Lab	Parameter	Exposure Day								Mean Chemistries
		1	2	3	4	5	6	7	8	
Control	D.O.	7.5	7.1	7.1	7.0					7.2
	pH	7.9	7.7	7.8	7.8					7.8
	Temp.	20.3	20.9	20.4	20.0					20.4
6-25	D.O.	7.6	7.3	7.8	7.4					7.3
	pH	8.0	7.9	8.0	8.0					7.9
	Temp.	20.7	20.7	20.0	20.3					20.4
25	D.O.	7.6	7.8	8.3	7.6					7.8
	pH	8.0	7.9	8.0	8.0					7.9
100	D.O.	6.6	6.6	7.6	7.4					6.8
	pH	7.9	7.8	8.0	8.0					7.9
	D.O.									
	pH									
	D.O.									
	pH									
	D.O.									
	pH									

Technician	KK	KK	KK	KK				
Date	7-7-94	7-8-94	7-9-94	7-10-94				
Time	1430	1330	1100	1450				

Comments:

172

SAMPLE SUMMARY SHEET  
MID-STATE ASSOCIATES, INC.  
BARABOO, WISCONSIN

SAMPLE IDENTIFICATION NUMBER: 7/6/III  
DESCRIPTION: Plainwell, MI effluent  
DATE SAMPLE COLLECTED: 7/5/94  
TIME SAMPLE COLLECTED: 0730  
VOLUME COLLECTED: 2 gal.  
SAMPLE CONTAINER: [ ] 2.5-gal cubitainer ☒ 1-gal cubitainer [ ] Other \_\_\_\_\_  
STORAGE FACILITIES: ☒ Aquatic Tox. Storage Refrigerator [ ] Other \_\_\_\_\_  
SAMPLE ARRIVAL TEMPERATURE: 0.3 °C SAMPLE ARRIVAL pH: 7.4  
SAMPLE ARRIVAL TIME: 1350

COMMENTS:

TECHNICIAN: D. Dill 7, 6, 94  
COOLER NUMBER: 82

TOXICITY TESTING:

TYPE: ☒ ACUTE [ ] CHRONIC [ ] OTHER DESCRIBE:

SPECIES: ☒ D. dubia ☒ D. magna [ ] D. pulex ☒ P. promelas [ ] Other \_\_\_\_\_  
7/6/94

TEST DATES: 7/6 - 7/7/94

SAMPLE SUMMARY SHEET  
MID-STATE ASSOCIATES, INC.  
BARABOO, WISCONSIN

SAMPLE IDENTIFICATION NUMBER: 7/8-III

DESCRIPTION: Plainville Effluent

DATE SAMPLE COLLECTED: 7/7

TIME SAMPLE COLLECTED: 0730

VOLUME COLLECTED: 2 gal

SAMPLE CONTAINER: [ ] 2.5-gal cubitainer [ ☒ ] 1-gal cubitainer [ ] Other \_\_\_\_\_

STORAGE FACILITIES: [ ☒ ] Aquatic Tox. Storage Refrigerator [ ] Other \_\_\_\_\_

SAMPLE ARRIVAL TEMPERATURE: 0.1 °C SAMPLE ARRIVAL pH: 7.4

SAMPLE ARRIVAL TIME: 1130

COMMENTS:

TECHNICIAN: [Signature]

7/8/94

COOLER NUMBER: # 55B

TOXICITY TESTING:

TYPE: [ ☒ ] ACUTE [ ] CHRONIC [ ] OTHER DESCRIBE:

SPECIES: [ ] C. dubia [ ] D. magna [ ] D. pulex [ ☒ ] P. promelas [ ] Other \_\_\_\_\_

TEST DATES: 7/8, 7/9/94

FAX: (608) 356-7340

Remarks:

[illegible]

NH3N (H2SO4)

Space Below For Laboratory Use

Pres.	Sample I.D. #'s:
-------	------------------



X

1

1

[illegible]

--	--

--	--

[illegible][illegible][illegible]

--	--

1

--	--

--	--

[illegible]

+

4

4

1

1

--	--

[illegible][illegible]

1

ime

30

ime

---

\_\_\_\_\_

Time:

Time: 11.30

Deg. C:  $0 \sim 10$  pH:



Laboratory Services  
1230 Lange Ct.  
Baraboo, WI 53913  
608-356-2760

*ANALYTICAL REPORT*

MSA  
Eric Korthals  
Baraboo, WI 53913

Client I.D. No.:2761  
Work Order No.:9407000087  
Project Name:PLAINWELL MI  
Project Number:  
Report Date: 07/19/94  
Date Recieved: 07/06/94  
Arrival Temperature:ON ICE


**Sample**  
**I.D. #:**74721

**Sample**  
**Description:**EFFLUENT

**Date Sampled:**07/05/94

<b><u>Analyte</u></b>	<b><u>Result</u></b>	<b><u>Units</u></b>
Alkalinity	186	mg/L
Hardness, Total	305	mg/L
Ammonia Nitrogen	1.62	mg/L

**Comments for entire Work Order:** None

Submitted By: 

Wisconsin DNR Laboratory Certification Number: 157066030  
DHSS Certification Number: MW0289



Laboratory Services  
1230 Lange Ct.  
Baraboo, WI 53913  
608-356-2760

*ANALYTICAL REPORT*

MSA  
Eric Korthals  
Baraboo, WI 53913

Client I.D. No.:2761  
Work Order No.:9407000163  
Project Name:PLAINWELL  
Project Number:  
Report Date: 07/19/94  
Date Recieved: 07/08/94  
Arrival Temperature:ON ICE

**Sample**  
**I.D. #:**75271

**Sample**  
**Description:**EFFLUENT

**Date Sampled:**07/07/94

<b><u>Analyte</u></b>	<b><u>Result</u></b>	<b><u>Units</u></b>
Alkalinity	173	mg/L
Hardness, Total	306	mg/L
Ammonia Nitrogen	2.02	mg/L

**Comments for entire Work Order:** None

Submitted By:   *h*  

Wisconsin DNR Laboratory Certification Number: 157066030  
DHSS Certification Number: MW0289

# MID-STATE ENVIRONMENTAL SERVICES

1230 LANGE COURT

BARABOO, WI 53913

(608) 356-1777

FAX: (608) 356-7340

## Fill In Analysis Needed Below

Remarks:

Project#:

Proj. Name: *Bioassay Testing*

Client Name/Number:

*Plainwell MI WWTP &  
BioAssay Lab*

# Of  
Con-  
tainers

Date Time Comp Grab Sample Description Sample#

Hardness (HNO3)

Alkalinity (unpres)

NH3N (H2SO4)

Space Below For Laboratory Use

Pres.

Sample I.D. #'s:

*7-5-94 7:30* *✓* *Rec. H2O*

*X*

*X*

*X*

*Effluent*

*X*

*X*

*X*

*74721*

Sampled By:

*Sony Lawrence*

Date:

*7-5-94*

Time:

*8:00AM*

Relinquished By:

*Don M...*

Date:

*7-5-94*

Time:

Received By:

Date:

Time:

Received By Lab:

*D. O'Neil*

Date:

*7-6-94*

Time:

*1:50*

Remarks:

Date Sample  
Disposed of:

Sample Shipped Via: ☒ UPS  
☒ Fed. Exp. ☐ Hand ☐ U.S. Mail

Sample Status:

Deg. C: *nil* pH:

*0.3°*



ORIGINAL  
REV-8-1-01  
28

STATE OF MICHIGAN



JOHN ENGLER, Governor

**DEPARTMENT OF ENVIRONMENTAL QUALITY**

*"Better Service for a Better Environment"*

HOLLISTER BUILDING, PO BOX 30473, LANSING MI 48909-7973

INTERNET: [www.deq.state.mi.us](http://www.deq.state.mi.us)

RUSSELL J. HARDING, Director

REPLY TO:

SURFACE WATER QUALITY DIVISION  
KNAPPS CENTRE  
PO BOX 30273  
LANSING MI 48909-7773

July 31, 2001

CERTIFIED MAIL -- 7000 0520 0016 5014 3121

Ms. Noreen Farmer, Clerk  
City of Plainwell  
141 N. Main St.  
Plainwell, Michigan 49080-1397

Dear Ms. Farmer:

SUBJECT: NPDES Permit No. MI0020494 -- Plainwell WWTP, 129 Fairlane Street, Plainwell

Your National Pollutant Discharge Elimination System (NPDES) Permit has been processed in accordance with appropriate state and federal regulations. It contains the requirements necessary for you to comply with state and federal water pollution control laws.

REVIEW THE PERMIT EFFLUENT LIMITS AND COMPLIANCE SCHEDULES CAREFULLY. These are subject to the criminal and civil enforcement provisions of both state and federal law. Permit violations are audited by the Michigan Department of Environmental Quality and the United States Environmental Protection Agency and may appear in a published quarterly noncompliance report made available to agencies and the public.

Your monitoring and reporting responsibilities must be complied with in accordance with this permit. If applicable, Discharge Monitoring Report forms will be transmitted to you in the near future. These reports are to be submitted monthly or otherwise as required by your NPDES permit.

Any reports, notifications, or questions regarding the attached permit or NPDES program should be directed to the following address:

Mr. Fred Morley, District Supervisor  
Kalamazoo District Office, SWQD, DEQ  
7953 Adobe Rd., Kalamazoo, Michigan 49009-5026  
Telephone: 616-567-3500

Sincerely,

*William E. McCracken*  
William E. McCracken, P.E.  
Chief, Permits Section  
Surface Water Quality Division  
517-373-8088

Attachment: Permit

cc: EPA-Region 5  
208 Agency -- West Michigan Regional Planning Commission  
Wastewater Treatment Facility Superintendent  
Mr. Fred Morley, Kalamazoo District Supervisor, SWQD (2)  
PCS Unit, SWQD  
Point Source Studies (Grand Rapids District Office), SWQD  
Industrial Pretreatment Program Unit, SWQD  
Files

PERMIT NO. MI0020494

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
AUTHORIZATION TO DISCHARGE UNDER THE  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**

In compliance with the provisions of the Federal Water Pollution Control Act, as amended, (33 U.S.C. 1251 et seq.; the "Federal Act"), Michigan Act 451, Public Acts of 1994, as amended (the "Michigan Act"), Parts 31 and 41, and Michigan Executive Orders 1991-31, 1995-4 and 1995-18,

City of Plainwell  
141 North Main Street  
Plainwell, Michigan 49080

is authorized to discharge from the Plainwell Wastewater Treatment Plant located at

129 Fairlane Street  
Plainwell, Michigan 49080

**designated as Plainwell WWTP**

to the receiving water named the Kalamazoo River in accordance with effluent limitations, monitoring requirements and other conditions set forth in this permit.

This permit takes effect on December 1, 2001. Any person who is aggrieved by this permit may file a sworn petition with the Office of Administrative Hearings of the Michigan Department of Environmental Quality, setting forth the conditions of the permit which are being challenged and specifying the grounds for the challenge. The Department may reject any petition filed more than 60 days after issuance as being untimely. If any condition of this permit is administratively challenged, the entire challenged permit is stayed and the previous permit will remain in effect until the Department takes final action after the Administrative Hearing.

This permit and the authorization to discharge shall expire at midnight, October 1, 2005. In order to receive authorization to discharge beyond the date of expiration, the permittee shall submit an application which contains such information and forms as are required by the Michigan Department of Environmental Quality to the Kalamazoo District Supervisor of the Surface Water Quality Division by April 1, 2005.

In accordance with R323.2416 of the Michigan Administrative Code, an annual biosolids land application fee shall be paid by each biosolids generator that land applies biosolids. Remittance of the fee to the Department by the permittee shall be postmarked no later than January 31 of each year.

This permit is based on a complete application submitted on April 3, 2000. The provisions of this permit are severable. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term in accordance with applicable laws and rules. On its effective date this permit shall supersede NPDES Permit No. MI0020494, expiring October 1, 2000.

Issued July 19, 2001.



William E. McCracken  
Chief, Permits Section  
Surface Water Quality Division

## PART I

## Section A. Limitations and Monitoring Requirements

## 1. Final Effluent Limitations, Monitoring Point 001A

During the period beginning on the effective date of this permit and lasting until the expiration date of this permit, the permittee is authorized to discharge treated municipal wastewaters from the Plainwell Wastewater Treatment Plant from Monitoring Point 001A through Outfall 001 to the Kalamazoo River. Such discharges shall be limited and monitored by the permittee as follows:

Parameter	Maximum Limits for Quantity or Loading				Maximum Limits for Quality or Concentration				Frequency of Analysis	Sample Type
	Monthly	7-Day	Daily	Units	Monthly	7-Day	Daily	Units		
Flow	(report)	---	(report)	MGD	---	---	---	---	Daily	Report Total Daily Flow
Carbonaceous Biochemical Oxygen Demand (CBOD <sub>5</sub> )										
10/01 -04/30	271	350	---	lbs/day	25	40	---	mg/l	5X/Week	24-Hr Composite
05/01 -09/30	217	325	---	lbs/day	20	---	30	mg/l	5X/Week	24-Hr Composite
Total Suspended Solids	325	488	---	lbs/day	30	45	---	mg/l	5X/Week	24-Hr Composite
Ammonia Nitrogen (as N)	---	---	---	lbs/day	(Report)	---	---	mg/l	Weekly	24-Hr Composite
Total Phosphorus (as P) (See Part I.A.1.f)	10.8	---	---	lbs/day	1.0	---	---	mg/l	5X/Week	24-Hr Composite
Fecal Coliform Bacteria	---	---	---	---	200	400	---	cts/100 ml	5X/Week	Grab
Total Residual Chlorine	---	---	---	---	---	---	0.038	mg/l	Daily	Grab
Minimum Monthly										
CBOD <sub>5</sub> Minimum % Removal (10/1 -4/30)	---	---	---	---	85	---	---	%	Monthly	Calculation
Total Suspended Solids Minimum % Removal	---	---	---	---	85	---	---	%	Monthly	Calculation
Minimum Daily										
pH	---	---	---	---	6.5	---	9.0	S.U.	5X/Week	Grab
Dissolved Oxygen	---	---	---	---	4.0	---	---	mg/l	5X/Week	Grab

The following design flow was used in determining the above limitations, but is not to be considered a limitation or actual capacity: 1.3 MGD.

- a. Narrative Standard  
The receiving water shall contain no unnatural turbidity, color, oil films, floating solids, foams, settleable solids, or deposits as a result of this discharge.
- b. Sampling Locations  
Samples for CBOD<sub>5</sub>, Total Suspended Solids, Ammonia Nitrogen and Total Phosphorus shall be taken prior to disinfection. Samples for Dissolved Oxygen, Fecal Coliform Bacteria, Total Residual Chlorine and pH shall be taken after disinfection. The Kalamazoo District Supervisor of the Surface Water Quality Division may approve alternate sampling locations which are demonstrated by the permittee to be representative of the effluent.

## PART I

## Section A. Limitations and Monitoring Requirements

- c. **Total Residual Chlorine**  
Compliance with the Total Residual Chlorine limit shall be determined on the basis of one or more grab samples. If more than one (1) sample per day is taken, the additional samples shall be collected in near equal intervals over at least eight (8) hours. The samples shall be analyzed immediately upon collection and the average reported as the daily concentration. EPA Method 330.1 or the Orion 97-70 electrode shall be used for analysis.
- d. **Percent Removal Requirements**  
These requirements shall be calculated based on the monthly (30-day) effluent CBOD<sub>5</sub> and Total Suspended Solids concentrations and the monthly influent concentrations for approximately the same period.
- e. **Water Quality Trading**  
The permittee may participate in Michigan's Water Quality Trading Program in accordance with applicable laws and rules.
- f. **Reduction of Total Phosphorus in the Kalamazoo River/Lake Allegan Watershed**  
The Department has developed a Total Maximum Daily Load (TMDL) for total phosphorus in Lake Allegan. The TMDL is established to protect Lake Allegan from high nutrient levels which has resulted in violations of water quality standards. In addition to establishing the TMDL, the Department is signatory to a "Cooperative Agreement to Meet Total Maximum Daily Load (TMDL) for Phosphorus" (cooperative agreement). Signatories to the cooperative agreement include point source dischargers of phosphorus and other stakeholders including nonpoint source contributors. The signatories to the cooperative agreement have agreed to participate with other point and nonpoint contributors in the watershed to reduce phosphorus as necessary to meet the goals of the TMDL. This will be accomplished by the development of phosphorus reduction implementation plans and other activities as specified in the cooperative agreement.

If it is determined that commitments under the cooperative agreement are not met, this permit may be modified to include the appropriate phosphorus requirements in accordance with applicable laws and rules.

## 2. Additional Monitoring Requirements

As a condition of this permit, the permittee shall monitor the discharge from monitoring point 001A for the constituents listed below. This monitoring is an application requirement of 40 CFR 122.21(j), effective December 2, 1999. Testing shall be conducted in September 2002, July 2003, May 2004, and March 2005. Grab samples shall be taken for total mercury, cyanide amenable to chlorination, total phenols, and parameters listed under Volatile Organic Compounds. For all other parameters, 24-hour composite samples shall be taken.

Test species for whole effluent toxicity monitoring shall include fathead minnow **and** either *Daphnia magna*, *Daphnia pulex* or *Ceriodaphnia dubia*. Testing and reporting procedures shall follow procedures contained in EPA/600/4-90/027F, "Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms." When the effluent ammonia nitrogen (as N) concentration is greater than 5 mg/l, the pH of the toxicity test shall be maintained at the pH of the effluent at the time of sample collection.

The test reports shall be submitted with the Discharge Monitoring Report (DMR) for the month following testing. For acute toxicity, the maximum value of the tests shall be reported in the "MAXIMUM" column under "QUALITY OR CONCENTRATION" on the Discharge Monitoring Reports. Acute toxicity results shall not be averaged. Toxicity test data acceptability is contingent upon the validation of the test method by the testing laboratory. Such validation shall be submitted to the Department upon request.

If, upon review of the analysis, it is determined that any of the materials or constituents require limiting in accordance with applicable Water Quality Standards, the permit may then be modified by the Michigan Department of Environmental Quality in accordance with applicable laws and rules.

## PART I

## Section A. Limitations and Monitoring Requirements

2. Additional Monitoring Requirements (Continued)Whole Effluent Toxicity

acute toxicity

Hardness

calcium carbonate

Metals (Total Recoverable), Cyanide and Total Phenols (Quantification levels in parentheses)

antimony (1 µg/l)	arsenic (1 µg/l)	beryllium (1 µg/l)
cadmium (0.2 µg/l)	chromium (5 µg/l)	copper (1 µg/l)
lead (1 µg/l)	mercury (0.5 ng/l)	nickel (2 µg/l)
selenium (1 µg/l)	silver (0.5 µg/l)	thallium (2 µg/l)
zinc (5 µg/l)		
cyanide amenable to chlorination (5 µg/l)		
total phenolic compounds		

Volatile Organic Compounds

acrolein	acrylonitrile	benzene
bromoform	carbon tetrachloride	chlorobenzene
chlorodibromomethane	chloroethane	2-chloroethylvinyl ether
chloroform	dichlorobromomethane	1,1-dichloroethane
1,2-dichloroethane	trans-1,2-dichloroethylene	1,1-dichloroethylene
1,2-dichloropropane	1,3-dichloropropylene	ethylbenzene
methyl bromide	methyl chloride	methylene chloride
1,1,2,2-tetrachloroethane	tetrachloroethylene	toluene
1,1,1-trichloroethane	1,1,2-trichloroethane	trichloroethylene
vinyl chloride		

Acid-Extractable Compounds

p-chloro-m-creso	2-chlorophenol	2,4-dichlorophenol
2,4-dimethylphenol	4,6-dinitro-o-cresol	2,4-dinitrophenol
2-nitrophenol	4-nitrophenol	pentachlorophenol
phenol	2,4,6-trichlorophenol	

Base/Neutral Compounds

acenaphthene	acenaphthylene	anthracene
benzidine	benzo(a)anthracene	benzo(a)pyrene
3,4-benzofluoranthene	benzo(ghi)perylene	benzo(k)fluoranthene
bis(2-chloroethoxy)methane	bis(2-chloroethyl)ether	bis(2-chloroisopropyl)ether
bis(2-ethylhexyl)phthalate	4-bromophenyl phenyl ether	butyl benzyl phthalate
2-chloronaphthalene	4-chlorophenyl phenyl ether	chrysene
di-n-butyl phthalate	di-n-octyl phthalate	dibenzo(a,h)anthracene
1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene
3,3'-dichlorobenzidine	diethyl phthalate	dimethyl phthalate
2,4-dinitrotoluene	2,6-dinitrotoluene	1,2-diphenylhydrazine
fluoranthene	fluorene	hexachlorobenzene
hexachlorobutadiene	hexachlorocyclo-pentadiene	hexachloroethane
indeno(1,2,3-cd)pyrene	isophorone	naphthalene
nitrobenzene	n-nitrosodi-n-propylamine	n-nitrosodimethylamine
n-nitrosodiphenylamine	phenanthrene	pyrene
1,2,4-trichlorobenzene		

## PART I

## Section A. Limitations and Monitoring Requirements

Preventing Pollution is the Best Solution

The Michigan Department of Environmental Quality (DEQ) encourages you to consider pollution prevention alternatives. In some cases pollution prevention may allow you to avoid the need to discharge pollutants which would otherwise require permit limitations -- or even avoid the need for permits altogether! Pollution prevention can:

- ☒ Save Money
- ☒ Reduce Waste
- ☒ Aid Permit Compliance
- ☒ Protect Our Environment
- ☒ Improve Corporate Image
- ☒ Reduce Liability

The DEQ is helping Michigan's industries save money, reduce waste and protect our environment through pollution prevention. DEQ staff can provide pollution prevention assistance through telephone consultations, technical workshops and seminars, and informational publications. They can also put you directly in touch with local support networks and national pollution prevention resources. For more information, contact the Michigan Department of Environmental Quality, Environmental Assistance Division, at 1-800-662-9278 or visit our homepage at <http://www.deq.state.mi.us>

**PART I**

**Section B. Schedule of Compliance**

This section (Section B: Schedule of Compliance) is **not needed** for this permit.

**PART I****Section C. Industrial Waste Pretreatment Program****1. Michigan Industrial Pretreatment Program**

- a. The permittee shall implement the Michigan Industrial Pretreatment Program approved on June 27, 1985, and modifications thereto, which upon approval are incorporated as enforceable requirements of this permit.
- b. The permittee shall comply with Rules 323.2301 through 323.2317 of the Michigan Administrative Code (Part 23 Rules) and the approved Michigan Industrial Pretreatment Program.
- c. The permittee shall have the legal authority and necessary interjurisdictional agreements that provide the basis for the implementation and enforcement of the approved Michigan Industrial Pretreatment Program throughout the service area. The legal authority and necessary interjurisdictional agreements shall include, at a minimum, the authority to carry out the activities specified in Rule 323.2306(a).
- d. The permittee shall develop procedures which describe, in sufficient detail, program commitments which enable implementation of the approved Michigan Industrial Pretreatment Program and the Part 23 Rules in accordance with Rule 323.2306(c).
- e. The permittee shall establish an interjurisdictional agreement (or comparable document) with all tributary governmental jurisdictions. Each interjurisdictional agreement shall contain, at a minimum, the following:
  - 1) identification of the agency responsible for the implementation and enforcement of the approved Michigan Industrial Pretreatment Program within the tributary governmental jurisdiction's boundaries; and
  - 2) the provision of the legal authority which provides the basis for the implementation and enforcement of the approved Michigan Industrial Pretreatment Program within the tributary governmental jurisdiction's boundaries.
- f. The permittee shall prohibit discharges that:
  - 1) cause, in whole or in part, the permittee's failure to comply with any condition of this permit or the Michigan Act;
  - 2) restrict, in whole or in part, the permittee's management of biosolids.
  - 3) cause, in whole or in part, operational problems at the treatment facility or in its collection system;
  - 4) violate any of the general or specific prohibitions identified in Rule 323.2303(1) and (2);
  - 5) violate categorical standards identified in Rule 323.2311; and
  - 6) violate local limits established in accordance with Rule 323.2303(4).
- g. The permittee shall maintain a list of its nondomestic users that meet the criteria of a significant industrial user as identified in Rule 323.2302(cc).
- h. The permittee shall develop an enforcement response plan which describes, in sufficient detail, program commitments which will enable the enforcement of the approved Michigan Industrial Pretreatment Program and the Part 23 Rules in accordance with Rule 323.2306(g).
- i. The District Supervisor of the Surface Water Quality Division may require modifications to the approved Michigan Industrial Pretreatment Program which are necessary to ensure compliance with the Part 23 Rules in accordance with Rule 323.2309.
- j. The permittee shall not implement changes or modifications to the approved Michigan Industrial Pretreatment Program without notification to the District Supervisor of the Surface Water Quality Division.



**PART I****Section C. Industrial Waste Pretreatment Program**

- k. The permittee shall maintain an adequate revenue structure and staffing level for effective implementation of the approved Michigan Industrial Pretreatment Program.
- l. The permittee shall develop and maintain, for a minimum of three (3) years, all records and information necessary to determine nondomestic user compliance with the Part 23 Rules and the approved Michigan Industrial Pretreatment Program. This period of retention shall be extended during the course of any unresolved enforcement action or litigation regarding a nondomestic user or when requested by the Department or the United States Environmental Protection Agency. All of the aforementioned records and information shall be made available upon request for inspection and copying by the Department and the United States Environmental Protection Agency.
- m. The permittee shall evaluate the approved Michigan Industrial Pretreatment Program for compliance with the Part 23 Rules and the prohibitions stated in item f (above). Based upon this evaluation, the permittee shall propose to the District Supervisor of the Surface Water Quality Division all necessary changes or modifications to the approved Michigan Industrial Pretreatment Program no later than the next Industrial Pretreatment Program Annual Report due date (see item o below).
- n. The permittee shall develop and enforce local limits to implement the prohibitions listed in item f above. Local limits shall be based upon data representative of actual conditions demonstrated in a maximum allowable headworks loading analysis.
- o. On or before April 1st of each year, the permittee shall submit, as required by Rule 323.2310(8) an Industrial Pretreatment Program Annual Report on the status of program implementation and enforcement activities. The reporting period shall begin on January 1st and end on December 31st. The Industrial Pretreatment Program Annual Report shall be submitted to the District Supervisor of the Surface Water Quality Division and may be submitted on forms provided by the Department. At a minimum, the Industrial Pretreatment Program Annual Report shall contain the following items:
  - 1) additions, deletions, and any other modifications to the permittee's previously submitted nondomestic user inventory (Rule 323.2306(c)(i));
  - 2) additions, deletions, and any other modifications to the permittee's approved Significant Industrial User List (Rule 323.2306(h));
  - 3) a listing of the names of Significant Industrial Users not inspected by the permittee at least once during the reporting period or at the frequency committed to in the approved Michigan Industrial Pretreatment Program;
  - 4) a listing of the names of Significant Industrial Users not sampled for all required pollutants by the permittee at least once during the reporting period or at the frequency committed to in the approved Michigan Industrial Pretreatment Program;
  - 5) a listing of the names of Significant Industrial Users without a permit at any time during the reporting period;
  - 6) a listing of the names of categorical industrial users in significant noncompliance for each of the criteria defined in Rule 323.2302(dd)(i)-(viii);
  - 7) proof of publication of all categorical industrial users in significant noncompliance in the largest daily newspaper in the municipality in which the permittee is located;

**PART I****Section C. Industrial Waste Pretreatment Program**

- 8) a summary of the enforcement activities by the permittee during the report period. This Summary shall include:
  - a) a listing of the names of nondomestic users which were the subject of an enforcement action;
  - b) the enforcement action taken and the date the action was taken; and
  - c) whether the nondomestic user returned to compliance by the end of the reporting period (include date nondomestic user returned to compliance).
- 9) a listing of the names of Significant Industrial Users who did not submit pretreatment reports in accordance with requirements specified in their permit during the reporting period.
- 10) a listing of the names of Significant Industrial Users who did not self-monitor in accordance with requirements specified in their permit during the reporting period;
- 11) A summary of results of all the sampling and analyses performed of the wastewater treatment influent, effluent, and sludge conducted in accordance with approved methods during the reporting period; and
- 12) any other relevant information as requested by the Department.

**PART I****Section D. Residuals Management Program****1. Residuals Management Program for Land Application of Biosolids**

The permittee is authorized to land apply bulk biosolids or prepare bulk biosolids for land application in accordance with the requirements established in R323.2401 through R323.2418 of the Michigan Administrative Code (Part 24 Rules). The permittee has developed and submitted a Residuals Management Program (RMP) to comply with the requirements of the Part 24 Rules. Incineration, landfilling and other residual disposal activities shall be conducted in accordance with Part II.D.7. of this permit.

The permittee shall implement the Residuals Management Program submitted, pending approval, and modifications thereto. The permittee shall certify that current residuals management practices are in accordance with the approved RMP, or propose modifications to the approved RMP. The program certification or proposed modifications shall be submitted to the Kalamazoo District Supervisor of the Surface Water Quality Division on or before January 1, 2002. The approved RMP, and any modifications thereto, are enforceable requirements of this permit.

**a. Residuals Management Program Description**

At a minimum, the program includes:

- 1) a description of the type and size of facility generating the biosolids;
- 2) a description of the biosolids treatment processes including the volume of biosolids generated from each process;
- 3) storage volume provided, if applicable;
- 4) transportation methods and spill prevention plan;
- 5) a description of the land application method;
- 6) a listing of the required information on all land application sites, information on initial application notifications required by R323.2408 and class B biosolids site restriction notifications, if applicable, as specified in R323.2414(3)(f);
- 7) a land application plan which shows compliance with the applicable management requirements identified in R323.2410 and the loading rates and limitations as specified in R323.2408, R323.2409 and R323.2417;
- 8) a description of the pathogen reduction method used to comply with R323.2411, R323.2414 and R323.2418;
- 9) a description of the vector attraction reduction method used to comply with R323.2415; and
- 10) information on monitoring program, monitoring frequencies pursuant to R323.2412, and one year of records representing the volume and concentrations of pollutants in the biosolids.

**b. Modifications to the Approved RMP**

The permittee shall submit proposed modifications to its RMP to the Kalamazoo District Supervisor of the Surface Water Quality Division for approval. The approved modification shall become effective upon the date of approval. Upon written notification, the Kalamazoo District Supervisor may impose additional requirements and/or limitations to the approved RMP, as necessary to protect public health and the environment from any adverse effect of a pollutant in the biosolids.

**c. Recordkeeping**

Records required by R323.2413 shall be kept for a minimum of five years. However, the records documenting cumulative loading for sites subject to cumulative pollutant loading rates shall be kept as long as the site receives biosolids.

**d. Annual Report**

The permittee shall report the number of dry tons of biosolids generated that were applied to the land in the State of Michigan in the state fiscal year (October 1 through September 30). The annual report shall include information required in R323.2413(2)(h) and R323.2413 (3) to (8), except R323.2413 (6)(b), (7)(b), and (8)(b). The report shall be submitted to the Kalamazoo District Supervisor of the Surface Water Quality Division on or before October 30 of each year.

## PART II

### Section A. Definitions

This list of definitions may include terms not applicable to this permit.

**Acute toxic unit (TU<sub>a</sub>)** means 100/LC<sub>50</sub> where the LC<sub>50</sub> is determined from a whole effluent toxicity (WET) test which produces a result that is statistically or graphically estimated to be lethal to 50% of the test organisms.

**Bioaccumulative chemical of concern (BCC)** means a chemical which, upon entering the surface waters, by itself or as its toxic transformation product, accumulates in aquatic organisms by a human health bioaccumulation factor of more than 1000 after considering metabolism and other physiochemical properties that might enhance or inhibit bioaccumulation. The human health bioaccumulation factor shall be derived according to R 323.1057(5). Chemicals with half-lives of less than 8 weeks in the water column, sediment, and biota are not BCCs. The minimum bioaccumulation concentration factor (BAF) information needed to define an organic chemical as a BCC is either a field-measured BAF or a BAF derived using the biota-sediment accumulation factor (BSAF) methodology. The minimum BAF information needed to define an inorganic chemical as a BCC, including an organometal, is either a field-measured BAF or a laboratory-measured bioconcentration factor (BCF). The BCCs to which these rules apply are identified in Table 5 of R 323.1057 of the Water Quality Standards.

**Biosolids** are the solid, semisolid, or liquid residues generated during the treatment of sanitary sewage or domestic sewage in a treatment works. This includes, but is not limited to, scum or solids removed in primary, secondary, or advanced wastewater treatment processes and a derivative of the removed scum or solids.

**Bulk biosolids** means biosolids that are not sold or given away in a bag or other container for application to a lawn or home garden.

**Chronic toxic unit (TU<sub>c</sub>)** means 100/MATC or 100/IC<sub>25</sub>, where the maximum acceptable toxicant concentration (MATC) and IC<sub>25</sub> are expressed as a percent effluent in the test medium.

**Class B Biosolids** refers to material that has met the Class B pathogen reduction requirements or equivalent treatment by a Process to Significantly Reduce Pathogens (PSRP) in accordance with the Part 24 Rules. Processes include aerobic digestion, composting, anaerobic digestion, lime stabilization and air drying.

**Daily concentration** is the sum of the concentrations of the individual samples of a parameter divided by the number of samples taken during any calendar day. If the parameter concentration in any sample is less than the quantification limit, regard that value as zero when calculating the daily concentration. The daily concentration will be used to determine compliance with any maximum and minimum daily concentration limitations (except for pH and dissolved oxygen). When required by the permit, report the maximum calculated daily concentration for the month in the "MAXIMUM" column under "QUALITY OR CONCENTRATION" on the Discharge Monitoring Reports (DMRs).

For pH, report the maximum value of any individual sample taken during the month in the "MAXIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs and the minimum value of any individual sample taken during the month in the "MINIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs. For dissolved oxygen, report the minimum concentration of any individual sample in the "MINIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs.

**Daily loading** is the total discharge by weight of a parameter discharged during any calendar day. This value is calculated by multiplying the daily concentration by the total daily flow and by the appropriate conversion factor. The daily loading will be used to determine compliance with any maximum daily loading limitations. When required by the permit, report the maximum calculated daily loading for the month in the "MAXIMUM" column under "QUANTITY OR LOADING" on the DMRs.

**Department** means the Michigan Department of Environmental Quality.

**Detection Level** means the lowest concentration or amount of the target analyte that can be determined to be different from zero by a single measurement at a stated level of probability.

**District Supervisor:** The Kalamazoo District Supervisor of the Surface Water Quality Division is located at Kalamazoo District Office-DEQ, Surface Water Quality Division, 7953 Adobe Road, Kalamazoo, Michigan 49009-5026, telephone: 616-567-3500 (fax: 616-567-9440).

## PART II

### Section A. Definitions

**Division of Health Facility Services -- Health Facility Evaluation Section, Michigan Department of Consumer and Industry Services** mailing address is P.O. Box 30195, Lansing, Michigan 48909.

**Drinking Water and Radiological Protection Division -- Environmental Health, Michigan Department of Environmental Quality** mailing address is P.O. Box 30630, Lansing, Michigan 48909-8130.

**EC<sub>50</sub>** means a statistically or graphically estimated concentration that is expected to cause 1 or more specified effects in 50% of a group of organisms under specified conditions.

**Fecal coliform bacteria monthly** is the geometric mean of the samples collected in a calendar month (or 30 consecutive days). The calculated monthly value will be used to determine compliance with the maximum monthly fecal coliform bacteria limitations. When required by the permit, report the calculated monthly value in the "AVERAGE" column under "QUALITY OR CONCENTRATION" on the DMRs.

**Fecal coliform bacteria 7-day** is the geometric mean of the samples collected in any 7-day period. The calculated 7-day value will be used to determine compliance with the maximum 7-day fecal coliform bacteria limitations. When required by the permit, report the maximum calculated 7-day concentration for the month in the "MAXIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs.

**Flow Proportioned sample** is a composite sample with the sample volume proportional to the effluent flow.

**Grab sample** is a single sample taken at neither a set time nor flow.

**IC<sub>25</sub>** means the toxicant concentration that would cause a 25% reduction in a nonquantal biological measurement for the test population.

**Interference** is a discharge which, alone or in conjunction with a discharge or discharges from other sources, both: 1) inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and 2) therefore, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or, of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent state or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including Title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including state regulations contained in any state sludge management plan prepared pursuant to Subtitle D of the SWDA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act. [This definition does not apply to sample matrix interference.]

**Land Application** means spraying or spreading biosolids or a biosolids derivative onto the land surface, injecting below the land surface, or incorporating into the soil so that the biosolids or biosolids derivative can either condition the soil or fertilize crops or vegetation grown in the soil.

**LC<sub>50</sub>** means a statistically or graphically estimated concentration that is expected to be lethal to 50% of a group of organisms under specified conditions.

**Maximum acceptable toxicant concentration (MATC)** means the concentration obtained by calculating the geometric mean of the lower and upper chronic limits from a chronic test. A lower chronic limit is the highest tested concentration that did not cause the occurrence of a specific adverse effect. An upper chronic limit is the lowest tested concentration which did cause the occurrence of a specific adverse effect and above which all tested concentrations caused such an occurrence.

## PART II

### Section A. Definitions

**Monthly concentration** is the sum of the daily concentrations determined during a reporting month (or 30 consecutive days) divided by the number of daily concentrations determined. The calculated monthly concentration will be used to determine compliance with any maximum monthly concentration limitations. When required by the permit, report the calculated monthly concentration in the "AVERAGE" column under "QUALITY OR CONCENTRATION" on the DMRs.

For minimum percent removal requirements, the monthly influent concentration and the monthly effluent concentration shall be determined. The calculated monthly percent removal, which is equal to 100 times the quantity [1 minus the quantity (monthly effluent concentration divided by the monthly influent concentration)], shall be reported in the "MINIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs.

**Monthly loading** is the sum of the daily loadings of a parameter divided by the number of daily loadings determined in the reporting month (or 30 consecutive days). The calculated monthly loading will be used to determine compliance with any maximum monthly loading limitations. When required by the permit, report the calculated monthly loading in the "AVERAGE" column under "QUANTITY OR LOADING" on the DMRs.

**National Pretreatment Standards** are the regulations promulgated by or to be promulgated by the Federal Environmental Protection Agency pursuant to Section 307(b) and (c) of the Federal Act. The standards establish nationwide limits for specific industrial categories for discharge to a POTW.

**NOAEL** means the highest tested dose or concentration of a substance that results in no observed adverse effect in exposed test organisms where higher doses or concentrations result in an adverse effect.

**Noncontact Cooling Water** is water used for cooling which does not come into direct contact with any raw material, intermediate product, by-product, waste product or finished product.

**Nondomestic user** is any discharger to a POTW that discharges wastes other than or in addition to water-carried wastes from toilet, kitchen, laundry, bathing or other facilities used for household purposes.

**Pretreatment** is reducing the amount of pollutants, eliminating pollutants, or altering the nature of pollutant properties to a less harmful state prior to discharge into a public sewer. The reduction or alteration can be by physical, chemical, or biological processes, process changes, or by other means. Dilution is not considered pretreatment unless expressly authorized by an applicable National Pretreatment Standard for a particular industrial category.

**POTW** is a publicly owned treatment works.

**Quantification level** means the measurement of the concentration of a contaminant obtained by using a specified laboratory procedure calculated at a specified concentration above the detection level. It is considered the lowest concentration at which a particular contaminant can be quantitatively measured using a specified laboratory procedure for monitoring of the contaminant.

**Regional Administrator** is the Region 5 Administrator, U.S. EPA, located at R-19J, 77 W. Jackson Blvd., Chicago, Illinois 60604.

**7-day concentration** is the sum of the daily concentrations determined during any 7 consecutive days in a reporting month divided by the number of daily concentrations determined. The calculated 7-day concentration will be used to determine compliance with any maximum 7-day concentration limitations. When required by the permit, report the maximum calculated 7-day concentration for the month in the "MAXIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs.

**7-day loading** is the sum of the daily loadings of a parameter divided by the number of daily loadings determined during any 7 consecutive days in a reporting month. The calculated 7-day loading will be used to determine compliance with any maximum 7-day loading limitations. When required by the permit, report the maximum calculated 7-day loading for the month in the "MAXIMUM" column under "QUANTITY OR LOADING" on the DMRs.

## PART II

### Section A. Definitions

**Significant industrial user** is a nondomestic user that: 1) is subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N; or 2) discharges an average of 25,000 gallons per day or more of process wastewater to a POTW (excluding sanitary, noncontact cooling and boiler blowdown wastewater); contributes a process wastestream which makes up five (5) percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or is designated as such by the permittee as defined in 40 CFR 403.12(a) on the basis that the industrial user has a reasonable potential for adversely affecting the POTW's treatment plant operation or violating any pretreatment standard or requirement (in accordance with 40 CFR 403.8(f)(6)).

**Tier I value** means a value for aquatic life, human health or wildlife calculated under R 323.1057 of the Water Quality Standards using a tier I toxicity database.

**Tier II value** means a value for aquatic life, human health or wildlife calculated under R 323.1057 of the Water Quality Standards using a tier II toxicity database.

**Toxicity Reduction Evaluation (TRE)** means a site-specific study conducted in a stepwise process designed to identify the causative agents of effluent toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in effluent toxicity.

**Water Quality Standards** means the Part 4 Water Quality Standards developed under Part 31 of Act No. 451 of the Public Acts of 1994, as amended, being Rules 323.1041 through 323.1117 of the Michigan Administrative Code.

**3-Portion Composite sample** is a sample consisting of three equal volume grab samples collected at equal intervals over an 8-hour period.

**24-Hour Composite sample** is a flow proportioned composite sample consisting of hourly or more frequent portions that are taken over a 24-hour period.

## PART II

### Section B. Monitoring Procedures

#### 1. Representative Samples

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge.

#### 2. Test Procedures

Test procedures for the analysis of pollutants shall conform to regulations promulgated pursuant to Section 304(h) of the Federal Act (40 CFR Part 136 - Guidelines Establishing Test Procedures for the Analysis of Pollutants). For parameters not specified in the permit or covered by the regulations, test procedures shall be submitted for approval to the Kalamazoo District Supervisor of the Surface Water Quality Division.

The permittee shall periodically calibrate and perform maintenance procedures on all analytical instrumentation at intervals to ensure accuracy of measurements. The calibration and maintenance shall be performed as part of the permittee's laboratory Quality Control/Quality Assurance program.

#### 3. Instrumentation

The permittee shall periodically calibrate and perform maintenance procedures on all monitoring instrumentation at intervals to ensure accuracy of measurements.

#### 4. Recording Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information: 1) the exact place, date, and time of measurement or sampling; 2) the person(s) who performed the measurement or sample collection; 3) the dates the analyses were performed; 4) the person(s) who performed the analyses; 5) the analytical techniques or methods used; 6) the date of and person responsible for equipment calibration; and 7) the results of all required analyses.

#### 5. Records Retention

All records and information resulting from the monitoring activities required by this permit including all records of analyses performed and calibration and maintenance of instrumentation and recordings from continuous monitoring instrumentation shall be retained for a minimum of three (3) years, or longer if requested by the Regional Administrator or the Michigan Department of Environmental Quality.



## PART II

### Section C. Reporting Requirements

#### 1. Start-up Notification

If the permittee will not discharge during the first 60 days following the effective date of this permit, the permittee shall notify the Kalamazoo District Supervisor of the Surface Water Quality Division within 14 days following the effective date of this permit, and then 60 days prior to the commencement of the discharge.

#### 2. Submittal Requirements for Self-Monitoring Data

Unless instructed on the effluent limits page to conduct "retained self-monitoring," the permittee shall submit self-monitoring data on the Environmental Protection Agency's Discharge Monitoring Report (DMR) forms (monthly summary information) and the Department's Daily Discharge Monitoring Report forms (daily information) to PCS-Data Entry, Surface Water Quality Division, Michigan Department of Environmental Quality, P.O. Box 30273, Lansing, Michigan, 48909-7773, for each calendar month of the authorized discharge period(s). The forms shall be postmarked no later than the 10th day of the month following each month of the authorized discharge period(s).

Alternative Daily Discharge Monitoring Report formats may be used if they provide equivalent reporting details and are approved by the Kalamazoo District Supervisor of the Surface Water Quality Division. For information on electronic submittal of this information, contact the Kalamazoo District Supervisor.

#### 3. Retained Self-Monitoring Requirements

If instructed on the effluent limits page to conduct retained self-monitoring, the permittee shall maintain a year-to-date log of retained self-monitoring results and, upon request, provide such log for inspection to the staff of the Surface Water Quality Division, Michigan Department of Environmental Quality (in the case of Type I or Type II public water supplies, mobile home parks, campgrounds, and marinas, to the staff of the Drinking Water and Radiological Protection Division -- Environmental Health, Michigan Department of Environmental Quality, or, in the case of hospitals, nursing homes and extended care facilities, to the staff of the Division of Health Facility Services -- Health Facility Evaluation Section, Michigan Department of Consumer and Industry Services). Retained self-monitoring results are public information and shall be promptly provided to the public upon request.

The permittee shall certify, in writing, to the Kalamazoo District Supervisor of the Surface Water Quality Division, on or before January 10th of each year, that: 1) all retained self-monitoring requirements have been complied with and a year-to-date log has been maintained; and 2) the application on which this permit is based still accurately describes the discharge.

#### 4. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report. Such increased frequency shall also be indicated.

Monitoring required pursuant to Part 41 of the Michigan Act or Rule 35 of the Mobile Home Park Commission Act (Act 96 of the Public Acts of 1987) for assurance of proper facility operation shall be submitted as required by the Department.

#### 5. Compliance Dates Notification

Within 14 days of every compliance date specified in this permit, the permittee shall submit a written notification to the Kalamazoo District Supervisor of the Surface Water Quality Division indicating whether or not the particular requirement was accomplished. If the requirement was not accomplished, the notification shall include an explanation of the failure to accomplish the requirement, actions taken or planned by the permittee to correct the situation, and an estimate of when the requirement will be accomplished. If a written report is required to be submitted by a specified date and the permittee accomplishes this, a separate written notification is not required.

## PART II

### Section C. Reporting Requirements

#### 6. Noncompliance Notification

Compliance with all applicable requirements set forth in the Federal Act, Parts 31 and 41 of the Michigan Act, and related regulations and rules is required. All instances of noncompliance shall be reported as follows:

- a. 24-hour reporting - Any noncompliance which may endanger health or the environment (including maximum daily concentration discharge limitation exceedances) shall be reported, verbally, within 24 hours from the time the permittee becomes aware of the noncompliance. A written submission shall also be provided within five (5) days.
- b. other reporting - The permittee shall report, in writing, all other instances of noncompliance not described in a. above at the time monitoring reports are submitted; or, in the case of retained self-monitoring, within five (5) days from the time the permittee becomes aware of the noncompliance.

Written reporting shall include: 1) a description of the discharge and cause of noncompliance; and 2) the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and the steps taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.

#### 7. Spill Notification

The permittee shall immediately report any spill or loss of any product, by-product, intermediate product, oils, solvents, waste material, or any other polluting substance which occurs to the surface waters or groundwaters of the state by calling the Kalamazoo District Supervisor of the Surface Water Quality Division at telephone: 616-567-3500, or if the notice is provided after regular working hours call the Department of Environmental Quality's 24-hour Pollution Emergency Alerting System telephone number, 1-800-292-4706 (calls from out-of-state dial 1-517-373-7660); and within ten (10) days of the spill or loss, the permittee shall submit to the Kalamazoo District Supervisor of the Surface Water Quality Division a full written explanation as to the cause and discovery of the spill or loss, clean-up and recovery measures taken, preventative measures to be taken, and schedule of implementation.

#### 8. Upset Noncompliance Notification

If a process "upset" (defined as an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee) has occurred, the permittee who wishes to establish the affirmative defense of upset shall notify the Kalamazoo District Supervisor of the Surface Water Quality Division by telephone within 24 hours of becoming aware of such conditions; and within five (5) days, provide in writing, the following information:

- a. that an upset occurred and that the permittee can identify the specific cause(s) of the upset;
- b. that the permitted wastewater treatment facility was, at the time, being properly operated; and
- c. that the permittee has specified and taken action on all responsible steps to minimize or correct any adverse impact in the environment resulting from noncompliance with this permit.

In any enforcement proceedings, the permittee, seeking to establish the occurrence of an upset, has the burden of proof.

**PART II****Section C. Reporting Requirements****9. Bypass Prohibition and Notification**

- a. Bypass Prohibition - Bypass is prohibited unless:
- 1) bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
  - 2) there were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass; and
  - 3) the permittee submitted notices as required under 9.b. or 9.c. below.
- b. Notice of Anticipated Bypass - If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the Kalamazoo District Supervisor of the Surface Water Quality Division, if possible at least ten (10) days before the date of the bypass, and provide information about the anticipated bypass as required by the Kalamazoo District Supervisor. The Kalamazoo District Supervisor may approve an anticipated bypass, after considering its adverse effects, if it will meet the three conditions listed in 9.a. above.
- c. Notice of Unanticipated Bypass - The permittee shall submit notice to the Kalamazoo District Supervisor of the Surface Water Quality Division of an unanticipated bypass by telephone at 616-567-3500 (if the notice is provided after regular working hours, use the following number: 1-800-292-4706) as soon as possible, but no later than 24 hours from the time the permittee becomes aware of the circumstances.
- d. Written Report of Bypass - A written submission shall be provided within five (5) working days of commencing any bypass to the Kalamazoo District Supervisor of the Surface Water Quality Division, and at additional times as directed by the Kalamazoo District Supervisor. The written submission shall contain a description of the bypass and its cause; the period of bypass, including exact dates and times, and if the bypass has not been corrected, the anticipated time it is expected to continue; steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass; and other information as required by the Kalamazoo District Supervisor.
- e. Bypass Not Exceeding Limitations - The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of 9.a., 9.b., 9.c., and 9.d., above. This provision does not relieve the permittee of any notification responsibilities under Part II.C.10. of this permit.
- f. Definitions
- 1) Bypass means the intentional diversion of waste streams from any portion of a treatment facility.
  - 2) Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

## PART II

### Section C. Reporting Requirements

#### 10. Notification of Changes in Discharge

The permittee shall notify the Kalamazoo District Supervisor of the Surface Water Quality Division, in writing, within 10 days of knowing, or having reason to believe, that any activity or change has occurred or will occur which would result in the discharge of: 1) detectable levels of chemicals on the current Michigan Critical Materials Register, priority pollutants or hazardous substances set forth in 40 CFR 122.21, Appendix D, or the Pollutants of Initial Focus in the Great Lakes Water Quality Initiative specified in 40 CFR 132.6, Table 6, which were not acknowledged in the application or listed in the application at less than detectable levels; 2) detectable levels of any other chemical not listed in the application or listed at less than detection, for which the application specifically requested information; or 3) any chemical at levels greater than five times the average level reported in the complete application submitted on April 3, 2000. Any other monitoring results obtained as a requirement of this permit shall be reported in accordance with the compliance schedules.

#### 11. Changes in Facility Operations

Any anticipated action or activity, including but not limited to facility expansion, production increases, or process modification, which will result in new or increased loadings of pollutants to the receiving waters must be reported to the Kalamazoo District Supervisor of the Surface Water Quality Division by a) submission of an increased use request (application) and all information required under Rule 323.1098 (Antidegradation) of the Water Quality Standards or b) by notice if the following conditions are met: 1) the action or activity will not result in a change in the types of wastewater discharged or result in a greater quantity of wastewater than currently authorized by this permit; 2) the action or activity will not result in violations of the effluent limitations specified in this permit; 3) the action or activity is not prohibited by the requirements of Part II.C.12.; and 4) the action or activity will not require notification pursuant to Part II.C.10. Following such notice, the permit may be modified according to applicable laws and rules to specify and limit any pollutant not previously limited.

#### 12. Bioaccumulative Chemicals of Concern (BCC)

Consistent with the requirements of Rules 323.1098 and 323.1215 of the Michigan Administrative Code, the permittee is prohibited from undertaking any action that would result in a lowering of water quality from an increased loading of a BCC unless an increased use request and antidegradation demonstration have been submitted and approved by the Department.

#### 13. Transfer of Ownership or Control

In the event of any change in control or ownership of facilities from which the authorized discharge emanates, the permittee shall notify the succeeding owner or controller of the existence of this permit by letter, a copy of which shall be forwarded to the Kalamazoo District Supervisor of the Surface Water Quality Division 30 days prior to the actual transfer of ownership or control.

## PART II

### Section D. Management Responsibilities

#### 1. Duty to Comply

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit.

It is the duty of the permittee to comply with all the terms and conditions of this permit. Any noncompliance with the Effluent Limitations, Special Conditions, or terms of this permit constitutes a violation of the Michigan Act and/or the Federal Act and constitutes grounds for enforcement action: for permit termination, revocation and reissuance, or modification; or denial of an application for permit renewal.

#### 2. Operator Certification

The permittee shall have the waste treatment facilities under direct supervision of an operator certified at the appropriate level for the facility certification by the Michigan Department of Environmental Quality, as required by Sections 3110 and 4104 of the Michigan Act.

#### 3. Facilities Operation

The permittee shall, at all times, properly operate and maintain all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes adequate laboratory controls and appropriate quality assurance procedures.

#### 4. Power Failures

In order to maintain compliance with the effluent limitations of this permit and prevent unauthorized discharges, the permittee shall either:

- a. provide an alternative power source sufficient to operate facilities utilized by the permittee to maintain compliance with the effluent limitations and conditions of this permit; or
- b. upon the reduction, loss, or failure of one or more of the primary sources of power to facilities utilized by the permittee to maintain compliance with the effluent limitations and conditions of this permit, the permittee shall halt, reduce or otherwise control production and/or all discharge in order to maintain compliance with the effluent limitations and conditions of this permit.

#### 5. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to the surface waters or groundwaters of the state resulting from noncompliance with any effluent limitation specified in this permit including, but not limited to, such accelerated or additional monitoring as necessary to determine the nature and impact of the discharge in noncompliance.

#### 6. Containment Facilities

The permittee shall provide facilities for containment of any accidental losses of concentrated solutions, acids, alkalies, salts, oils, or other polluting materials in accordance with the requirements of the Part 5 Rules (Rules 323.1151 through 323.1169 of the Michigan Administrative Code). For a Publicly Owned Treatment Work (POTW), these facilities shall be approved under Part 41 of the Michigan Act.

## PART II

### Section D. Management Responsibilities

#### 7. Waste Treatment Residues

Residuals (i.e. solids, sludges, biosolids, filter backwash, scrubber water, ash, grit or other pollutants) removed from or resulting from treatment or control of wastewaters, shall be disposed of in an environmentally compatible manner and according to applicable laws and rules. These laws may include, but are not limited to, the Michigan Act, Part 31 for protection of water resources, Part 55 for air pollution control, Part 111 for hazardous waste management, Part 115 for solid waste management, Part 121 for liquid industrial wastes, Part 301 for protection of inland lakes and streams, and Part 303 for wetlands protection. Such disposal shall not result in any unlawful pollution of the air, surface waters or groundwaters of the state.

#### 8. Treatment System Closure

In the event that discharges from a treatment system are planned to be eliminated, the permittee shall submit a closure plan to the Kalamazoo District Supervisor for approval. The closure plan shall include characterization of any wastewater and residuals which will remain on-site after the discharges are eliminated, along with disposal methods, proposed schedule, and any other relevant information as required by the Kalamazoo District Supervisor. Closure activities involving waste treatment residuals shall be consistent with Part II.D.7. of this permit.

The permittee shall implement the closure activities in accordance with the approved plan. Any wastewater or residual disposal inconsistent with the approved plan shall be considered a violation of this permit. After proper closure of the treatment system, this permit may be terminated.

#### 9. Right of Entry

The permittee shall allow the Michigan Department of Environmental Quality, any agent appointed by the Department or the Regional Administrator, upon the presentation of credentials:

- a. to enter upon the permittee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this permit; and
- b. at reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect process facilities, treatment works, monitoring methods and equipment regulated or required under this permit; and to sample any discharge of pollutants.

#### 10. Availability of Reports

Except for data determined to be confidential under Section 308 of the Federal Act and Rule 2128 (Rule 323.2128 of the Michigan Administrative Code), all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department and the Regional Administrator. As required by the Federal Act, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the Federal Act and Sections 3112, 3115, 4106 and 4110 of the Michigan Act.

## PART II

### Section E. Activities Not Authorized by This Permit

#### 1. Discharge to the Groundwaters

This permit does not authorize any discharge to the groundwaters. Such discharge may be authorized by a groundwater discharge permit issued pursuant to the Michigan Act.

#### 2. Facility Construction

This permit does not authorize or approve the construction or modification of any physical structures or facilities. Approval for such construction for a POTW must be by permit issued under Part 41 of the Michigan Act. Approval for such construction for a mobile home park, campground or marina shall be from the Drinking Water and Radiological Protection Division -- Environmental Health, Michigan Department of Environmental Quality. Approval for such construction for a hospital, nursing home or extended care facility shall be from the Division of Health Facility Services -- Health Facility Evaluation Section, Michigan Department of Consumer and Industry Services upon request.

#### 3. Civil and Criminal Liability

Except as provided in permit conditions on "Bypass" (Part II.C.9. pursuant to 40 CFR 122.41(m)), nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance, whether or not such noncompliance is due to factors beyond the permittee's control, such as accidents, equipment breakdowns, or labor disputes.

#### 4. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee may be subject under Section 311 of the Federal Act except as are exempted by federal regulations.

#### 5. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by Section 510 of the Federal Act.

#### 6. Property Rights


The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize violation of any federal, state or local laws or regulations, nor does it obviate the necessity of obtaining such permits or approvals from other units of government as may be required by law.

# TMDL AGREEMENT

## MEMORANDUM

---

To: Ruth King and Council

From: Bryan Pond  
Superintendent of Waste Water Treatment Plant 

Date: April 11, 2001

Re: National Pollutant Discharge Elimination System

The draft National Pollutant Discharge Elimination System (NPDES) Permit was recently issued to the City of Plainwell. The Permit for the City has no changes except for the new rules regarding phosphorus.

Enclosed is a copy of the "Cooperative Agreement to Meet Total Maximum Daily Load" (TMDL) for Phosphorus for Lake Allegan. This agreement will enable the City and its signed user's to work together to accomplish the requirement set forth by the DEQ and EPA.

If we chose not to sign the agreement we would most probably receive a very stringent phosphorus discharge limit.

My professional recommendation is to have the City sign the "Cooperative Agreement" and enter a partnership with the other agencies. Doing this will allow the City five years before the next evaluation, the DEQ and EPA will then review our progress. The agreement will be in effect for a total of 10 years.

BP/ldhs

*Approved  
by council  
4-23-01*



Kalamazoo River/Lake Allegan Watershed Cooperative  
Agreement for the Reduction of Phosphorus Loading  
March 19, 2001

This agreement is between the Michigan Department of Environmental Quality (MDEQ), Surface Water Quality Division (SWQD) and the attached signatories, representing both point source (PS) and nonpoint source (NPS) stakeholders in the Kalamazoo River/Lake Allegan watershed. The primary purpose of the agreement is to create the process to cooperatively reduce phosphorus loading in the Kalamazoo River/Lake Allegan watershed to meet the goals of the Total Maximum Daily Load.

We the undersigned acknowledge the importance of the Kalamazoo River/Lake Allegan as valuable water resources for the residents, aquatic life, and wildlife in the watershed and agree to the following:

1. As identified in the document titled "Total Maximum Daily Load for Phosphorus in Lake Allegan" (TMDL) published March 2001 by the MDEQ, NPS phosphorus loading accounts for a substantial amount of the present phosphorus load to Lake Allegan. In the 1998 growing season, NPS loads accounted for 65 percent of the total phosphorus load.
2. To improve the resource and achieve attainment of the goals of the TMDL, phosphorus levels must be reduced.
3. NPS discharges of phosphorus occur from a variety of rural and urban land uses in the Kalamazoo River/Lake Allegan watershed. Many stakeholders are pursuing a significant reduction in NPS discharges of phosphorus in the watershed. The signatories agree to facilitate this reduction by providing assistance, resources, and the coordination of local efforts. The signatories also agree to develop a NPS Reduction Implementation Plan and submit it to the MDEQ, SWQD, Kalamazoo District Supervisor, within one year of the effective date of this agreement.
4. The MDEQ agrees, subject to United States Environmental Protection Agency approval and public comment, to include the current National Pollutant Discharge Elimination System (NPDES) permit limitations and/or monitoring requirements for phosphorus in the following permits for five years from the effective date of this agreement:

FACILITY NAME	PERMIT NUMBER
A M Todd Company	MI0038407
Albion Wastewater Treatment Plant (WWTP)	MI0022161
Allegan Metal Finishing	MI0042722
Allegan WWTP	MI0020532
Battle Creek WWTP	MI0022276
Bellevue WWTP	MIG570051
Bostik Incorporated	MI0039357
Charlotte WWTP	MI0020788
Checker Motors Corporation	MIG250139
Concord Wastewater Sewage Lagoon (WWSL)	MIG580003
Crown Vantage	MI0000205
Eaton Corporation – Proving Grounds	MIG250029
Eaton Corporation – Torque Control Products Division	MI0001970
Glassmaster Control – Kalamazoo	MIG250001
Gun Lake Sewer Authority	MI0042501
Hercules, Incorporated – Kalamazoo Plant	MIG250134

Homer WWSL	MI0021407
International Paper Company	MIG250129
Joseph Campbell Company – Marshall	MI0045268
Kalamazoo WWTP	MI0023299
Kellogg Company	MIG250044
Mark I Molded Plastics	MIG250422
Marshall WWTP	MI0023540
Menasha Corporation	MI0003824
Murco Foods, Incorporated	MI0050628
Olivet WWSL	MIG580267
Otsego WWTP	MI0023744
Parker Hannifin Corporation-Brass Products Division	MI0054038
Parker Hannifin Corporation-Pump/Motor Division	MI0054046
Parma WWSL	MIG580005
Perrigo Company-Plant No. 1	MI0039306
Perrigo Company-Plant Nos. 4 and 5	MI0039314
Pharmacia and Upjohn	MI0002941
Plainwell, Incorporated	MI0003794
Plainwell WWTP	MI0020494
Rock-Tenn Company	MI0000787
Springport WWSL	MIG580281

In 2006, the PS permit limits for phosphorus loadings will be evaluated and may need to be revised pursuant to applicable laws and regulations depending on the efficacy of the agreement in meeting the TMDL goals.

5. The permittees agree to develop a PS Reduction Implementation Plan to meet the combined waste load allocation (WLA) of 8,700 pounds of phosphorus per month from April through June, and 6,700 pounds per month from July through September as identified in the TMDL. The PS Reduction Implementation Plan shall be developed and submitted to the MDEQ, SWQD, Kalamazoo District Supervisor, within one year of the effective date of this agreement. The PS Reduction Implementation Plan will contain milestones and a timeline to reach the combined WLA identified in the TMDL within five years of the effective date of this agreement. The permittees listed in #4 above agree to put forth reasonable best efforts for their individual discharges to accomplish the individual phosphorus loading goals set forth in the PS Reduction Implementation Plan. Nothing in this agreement shall be construed to require the use of Best Available Control Technology or any other particular level of treatment technology.
6. The signatories agree to meet semiannually in the spring and fall to: a) discuss overall and individual performance and activity directed towards meeting the goals identified in the TMDL; b) review the PS and NPS Reduction Implementation Plans and recommend modifications for improving implementation; and c) review data and information developed through the continued studies to be conducted pursuant to paragraphs #8 and #9 below.
7. An annual report shall be submitted by the signatories on or before March 1 of each year to the MDEQ, SWQD, Kalamazoo District Supervisor, summarizing progress made towards meeting the goals identified in the TMDL to include the following:
  - Summaries from the semiannual meetings.
  - Progress made on each item identified in the implementation plans.
  - Changes in the implementation plans in response to new challenges.
  - Local successes in phosphorus control.
  - Summary of the PS phosphorus effluent data and control methods.

*100%  
25-00 on  
1998 max*

- Summary of any locally derived watershed monitoring data, including trend data, as implementation proceeds.
8. The MDEQ agrees to continue monitoring the water quality in Lake Allegan and the Kalamazoo River, as resources allow. Monitoring will be done at the M-89, M-222, and M-40/89 crossings to evaluate the most effective location for inlet monitoring. The exact monitoring locations for the M-89 inlet to Lake Allegan samples are identified in the MDEQ staff report number MI/DEQ/SWQ-99/125. The locations of the M-40/89 and M-222 inlet monitoring points are identified in the TMDL. The minimum monitoring frequency will be monthly from April through September each year at each site in Lake Allegan and the Kalamazoo River. The MDEQ will prepare a report of the annual sampling results by March 1 of each year. The report will be distributed to all signatories of this agreement.
  9. The signatories agree that further study may demonstrate designated use attainment in the watershed even if phosphorus levels are not reduced as contemplated in the TMDL. The signatories agree to discuss the continuing study of the water quality parameters and endpoints for the phosphorus reduction program. The study may include, but need not be limited to, the following:
    - Continued monitoring of ambient phosphorus levels.
    - Verify the established baselines and endpoints for relevant warm water fish species and other indigenous aquatic life and wildlife.
    - Study and quantify phosphorus contributions from accumulated sediments.
    - Evaluate other causes of water quality impairment.
    - Establish relationship between phosphorus reduction and water quality improvements.
  10. Any signatory may terminate its involvement in this agreement at any time for any reason. Notice of such termination shall be given in writing to all other signatories prior to the effective date of termination.
  11. This agreement shall expire on March 1, 2010. The signatories may agree to renew the agreement.
  12. No signatory makes any admission of fact or law, or waives any claim, right, or argument against anyone or any entity by becoming a signatory to this agreement or by acting under it. Nothing in this agreement shall create any claim, right, or argument in any third party.
  13. The signatories below shall represent either of the following:
    - A. For a municipal, state, or other public facility, or a not-for-profit entity, a principal executive officer or ranking elected official (such as the mayor, village president, city or village manager or clerk).
    - B. For an organization, company, corporation or authority, a principal executive officer.
    - C. For a partnership, a general partner.
    - D. For a sole proprietor, the proprietor.
    - E. For a corporation, a principal executive officer of at least the level of vice president or their designated representative.
    - F. For a local unit of government, a county, city, village, or township official, or an agency of a county, city, village, or township.

By Michigan Department of Environmental Quality:

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Date

By A M Todd Company:

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Date

By City of Albion:

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Date

By Allegan Metal Finishing:

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Date

By City of Allegan:

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Date

By City of Battle Creek:

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Date

By City of Bellevue:

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Date

By Bostik, Incorporated:

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Date

By City of Charlotte:

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Date

By Checker Motors Corporation:

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Date

By City of Concord:

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Date

By Crown Vantage:

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Date

By Eaton Corporation – Proving Grounds:

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Date

By Eaton Corporation – Torque Control Products Division:

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Date

By Glassmaster Controls - Kalamazoo:

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Date

By Gun Lake Sewer Authority:

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Date

By Hercules, Incorporated – Kalamazoo Plant:

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Date

By City of Homer:

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Date

By International Paper Company:

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Date

By Joseph Campbell Company - Marshall:

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Date

By City of Kalamazoo:

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Date

By Kellogg Company:

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Date

By Mark I Molded Plastics:

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Date

By City of Marshall:

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Date

By Menasha Corporation:

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Date

By Murco Foods, Incorporated:

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Date

By City of Olivet:

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Date

By City of Otsego:

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Date

By Parker Hannifin Corporation-Brass Products Division:

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Date

By Parker Hannifin Corporation-Pump/Motor Division:

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Date



By City of Parma:

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Date

By Perrigo Company-Plant No. 1:

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Date

By Perrigo Company-Plants No. 4 and 5:

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Date

By Pharmacia and Upjohn:

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Date

By Plainwell, Incorporated:

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Date

By City of Plainwell:

Ruth King, City Administrator  
Name and Title  
Ruth King

04-24-01  
Date

By Rock-Tenn Company:

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Date

By City of Springport:

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Date

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# State of Michigan

## National Pollutant Discharge Elimination System Permit Application For Discharges To Surface Waters

General Instructions

Pages i - iv

Section I - General Facility Information

Pages 1 - 4

Section II - Sanitary Wastewater Facilities

Pages 5 - 21

Section III - Industrial and Commercial Wastewater Facilities

Pages 22 - 31



SURFACE WATER QUALITY DIVISION  
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

## PURPOSE

The National Pollutant Discharge Elimination System (NPDES) program protects the surface waters of the state by assuring that domestic and industrial discharges to those waters comply with state and federal requirements. Anyone discharging or proposing to discharge wastewater to the surface waters of the state shall make application for and obtain a valid NPDES permit. The permit is required under Section 402 of the Federal Clean Water Act, as amended (33 U.S.C. 1251 et seq, P.L. 92-500, 95-217), and under Michigan Act 451, Public Acts of 1994, as amended. The Michigan Department of Environmental Quality (DEQ) may issue either an individual permit or Certificate of Coverage (COC) under a valid General Permit, dependent on the nature of the proposed discharge.

This application applies to facilities that discharge treated or untreated wastewater to the surface waters of the State of Michigan. Completion and submittal of this application by the discharger is required at least 180 days prior to commencing a discharge or expiration of the discharger's current NPDES permit.

## AUTHORITY

The Part 21 Rules of Michigan Act 451, Public Acts of 1994, as amended, and Part 31 of the Act, provide authority to issue permits for wastewater discharges and the beneficial use of biosolids generated in the wastewater treatment process.

The DEQ administers the NPDES permit program in the State of Michigan.

## PENALTIES

Federal and State statutes provide penalties for submitting false application information:

Michigan Act 451, Public Acts of 1994, as amended, Part 31, Section 15(2) states: "A person who at the time of the violation knew or should have known that he or she discharged a substance contrary to this part, or contrary to a permit, order, rule, or stipulation of the department, or who intentionally makes a false statement, representation, or certification in an application form pertaining to a permit or in a notice or report required by the terms and conditions of an issued permit, or who intentionally renders inaccurate a monitoring device or record required to be maintained by the department, is guilty of a felony and shall be fined not less than \$2,500.00 or more than \$25,000.00 for each violation. The court may impose an additional fine of not more than \$25,000.00 for each day during which the unlawful discharge occurred. If the conviction is for a violation committed after a first conviction of the person under this subsection, the court shall impose a fine of not less than \$25,000.00 per day and not more than \$50,000.00 per day of violation. Upon conviction, in addition to a fine, the court in its discretion may sentence the defendant to imprisonment for not more than 2 years or impose probation upon a person for a violation of this part. With the exception of the issuance of criminal complaints, issuance of warrants, and the holding of an arraignment, the circuit court for the county in which the violation occurred has exclusive jurisdiction. However, the person shall not be subject to the penalties of this subsection if the discharge of the effluent is in conformance with and obedient to a rule, order, or permit of the department. In addition to a fine, the attorney general may file a civil suit in a court of competent jurisdiction to recover the full value of the injuries done to the natural resources of the state and the costs of surveillance and enforcement by the state resulting from the violation."

The Federal Clean Water Act of 1977 (P.L. 95-217), as amended, Section 309(c)(4), states: "Any person who knowingly makes false material statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under this act or who knowingly falsifies, tampers with, or renders inaccurate any monitoring device or method required to be maintained under this act, shall upon conviction, be punished by a fine not more than \$10,000, or by imprisonment for not more than 2 years, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment shall be a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than 4 years, or by both."

The Michigan Department of Environmental Quality (DEQ) will not discriminate against any individual or group on the basis of race, sex, religion, age, national origin, color, marital status, disability, or political beliefs. Questions or concerns should be directed to the Office of Personnel Services, PO Box 30473, Lansing MI 48909.

## GENERAL PROVISIONS

### COMPLETION OF FORMS

1. There are three sections in this application form:
  - **Section I** (pages 1-4) -- General Information to be provided by all applicants.
  - **Section II** (pages 5-14) -- Information to be provided by applicants that discharge domestic sanitary wastewater. These facilities include both publicly owned treatment works (POTWs) and privately owned treatment facilities such as mobile home parks, campgrounds, condominiums, etc..
  - **Section III** (pages 15-25) -- Information to be provided by applicants that discharge from industrial and commercial facilities, including process, cooling and sanitary wastewaters.
2. An appendix to the application is included. The appendix contains information that will assist the applicant in completion of the application. **The appendix should not be returned with the application.**
3. The applicant should provide all requested information, unless otherwise specified. **If a particular item or choice of answers does not fit the circumstances or characteristics of this application, enter "NA" for "Not Applicable" to indicate that the particular item was considered and not inadvertently omitted.** It is the applicant's responsibility to adequately characterize the discharge or proposed discharge. If the information requested by this application will not adequately characterize the discharge or proposed discharge, then additional information shall be provided by the applicant and attached to this application. Additional information may consist of narrative information describing a unique situation, additional monitoring performed by the applicant, etc.
4. When there are both existing facilities and proposed expansions of wastewater treatment facilities, provide information for both. Make an extra copy of each application page where there are differences between the existing and the proposed facility. (Include the "proposed facility" information only if the proposed facility is expected to be constructed and discharging within the next five years.)
5. For assistance on completing this application, contact the appropriate DEQ, Surface Water Quality Division District Office (see Pages 2 and 3 of the appendix).
6. After completing this application, **return Section I, and any other completed section(s) to the appropriate District Office** (see Pages 2 and 3 of the appendix).

### DEFINITIONS

**7-Day Concentration** is the sum of the daily concentrations determined during any seven (7) consecutive days in a calendar month divided by the number of daily concentrations determined. If any daily concentration is less than the method detection level, regard that value as the detection level when calculating the monthly concentration, and indicate that the result is "less than" the value reported.

**24-Hour Composite Sample** is a flow proportioned composite sample consisting of hourly or more frequent portions that are taken over a 24-hour period.

**Cumulative Pollutant Loading Rate (CPLR)** means the maximum amount of an inorganic pollutant that can be applied to an area of land.

**Daily Concentration** is the sum of the concentrations of the individual samples of a parameter divided by the number of samples taken during any calendar day. If the parameter concentration in any sample is less than the method detection level, regard that value as the detection level when calculating the daily concentration, and indicate that the result is "less than" the value reported.

**Discharge Location** is defined as the point where the discharge enters the "waters of the state".

**Flow Proportioned Sample** is a composite sample with the sample volume proportional to the effluent flow.

**Grab Sample** is a single sample taken at neither a set time nor flow.

**Monthly Concentration** is the sum of the daily concentrations determined during a reporting month (or 30 consecutive days), divided by the number of daily concentrations determined. If any daily concentration is less than the method detection level, regard that value as the detection level when calculating the monthly concentration, and indicate that the result is "less than" the value reported.

**Noncontact Cooling Water** is water used for cooling which does not come into direct contact with any raw material, intermediate product, by-product, waste product or finished product.

**Primary Industries** are listed in Table 2 of the appendix.

**Secondary Industries** are those industries that are not listed as primary industries.

**Storm Water - Not Regulated** is a storm water discharge that does not need a permit under federal storm water regulations at 40 CFR 122.26(b)(14).

**Storm Water - Regulated** is a "storm water discharge associated with industrial activity" as defined at 40 CFR 122.26 (b) (14), including any storm water subject to effluent guidelines as defined below.

**Storm Water Subject to Effluent Guidelines** is a storm water discharge for which federal effluent limitation guidelines exist. Such guidelines currently exist under the following sections of the federal regulations, 40 CFR: 411 - cement manufacturing; 412 - feedlots; 418 - fertilizer manufacturing; 419 - petroleum refining; 422 - phosphate manufacturing; 423 - steam electric; 434 - coal mining; 436 - mineral mining and processing; 440 - ore mining and dressing; and 443 Subpart A - asphalt emulsion.

## **Preventing Pollution is the Best Solution**

The Michigan Department of Environmental Quality (DEQ) encourages you to consider pollution prevention alternatives. In some cases pollution prevention may allow you to avoid the need to discharge pollutants which would otherwise require permit limitations -- or even avoid the need for permits altogether! Pollution prevention can:

- ☒ Save Money
- ☒ Reduce Waste
- ☒ Aid Permit Compliance
- ☒ Protect Our Environment
- ☒ Reduce Liability

The DEQ is helping Michigan's industries save money, reduce waste and protect our environment through pollution prevention. DEQ staff can provide pollution prevention assistance through telephone consultations, technical workshops and seminars, and informational publications. They can also put you directly in touch with local support networks and national pollution prevention resources. For more information, contact the DEQ, Environmental Assistance Division, at 1-800-662-9278 or visit our homepage at <http://www.deq.state.mi.us>.

## INSTRUCTIONS FOR COMPLETING SECTION I, PAGES 1 AND 2

Applicants should provide the following information on page one of the application. Where an address telephone number or e-mail address is duplicate indicate by writing the number from the appropriate box.

- 1) NPDES PERMIT OR CERTIFICATE OF COVERAGE (COC) NUMBER: This item applies to permit or COC reissuances **only**. Enter NA if the application is for a new discharge.
- 2) APPLICANT NAME AND MAILING ADDRESS:
  - For industrial facilities - provide the parent company name and the division name.
  - For federal and state facilities - provide the department name and the division or bureau name.
  - For commercial facilities - provide both the owner's name and business's name.
  - For publicly owned facilities - identify the legal owner of the facility and their mailing address.
- 3) APPLICATION CONTACT: Please provide the name, mailing address, telephone number and where appropriate the fax number and e-mail address of the person who should be contacted with questions concerning the application.
- 4) FACILITY MAILING ADDRESS: Provide the mailing address for the facility.
- 5) FACILITY CONTACT: Provide the name, title, address, telephone number and where appropriate the fax number and the e-mail address of the authorized contact person for the facility. This person should be thoroughly familiar with the facts reported on these forms in the event that contact regarding the permit application or permit issues must be made.
- 6) FACILITY NAME AND LOCATION: Provide the name of the facility or plant. Provide the physical location of the facility or plant. **DO NOT USE** P.O. Box numbers.
- 7) DISCHARGE MONITORING REPORTS (DMR): Provide the name and address, telephone number and where appropriate, the fax number and e-mail address of the person who will be responsible for completion and return of the facility's Discharge Monitoring Reports.
- 8) BIOSOLIDS BILLING: Provide the name and address, telephone number and where appropriate, the fax number and e-mail address of the person who will be responsible for payment of the land application fee required by Section 324.3132 of Michigan Act 451, Public Acts of 1997, Part 31.
- 9) STORM WATER BILLING: Provide the name and address, telephone number and where appropriate, the fax number and e-mail address of the person who will be responsible for payment of the facility storm water permit fee required in accordance with Section 324.3118 of Michigan Act 451, Public Acts of 1994, Part 31.
- 10) PERMIT ACTION REQUESTED: Indicate what type of permit action is being requested. If you are from out of state or have a valid Groundwater discharge permit and are applying to land apply biosolids please complete Section I and Section II Parts D, E and F
- 11) RULE 1098 DEMONSTRATION: If this facility has never discharged wastewater to the surface waters (New Use), or the facility is discharging but has never been issued an NPDES permit (existing unpermitted), or the facility has previously been issued an NPDES permit, but the facility is increasing the loading of pollutants to the receiving water, then check yes in this section and provide an antidegradation demonstration.
- 12) ADDITIONAL FACILITY INFORMATION: Provide the county and where appropriate the township where the facility is located. Also provide the location of the facility in State Planar Coordinates (e.g. NE 1/4, SE 1/4, Section 34, T1N, R12E) and the facility latitude and longitude.
- 13) CERTIFIED OPERATOR: Provide the operator's name, certification number, and the facility classification (if known, based on type of treatment). **NOTE:** Act 451 requires that all dischargers to the surface waters of the State of Michigan obtain a certified operator. If you have any questions regarding operator certification, please contact the Environmental Assistance Division, Operator Training Unit at 517-373-4755.
- 14) OTHER ENVIRONMENTAL PERMITS: Follow instructions on page two.



Michigan Department of Environmental Quality- Surface Water Quality Division  
**WASTEWATER DISCHARGE PERMIT APPLICATION**  
**SECTION I - General Information**

(This information is required by the Part 21 Rules of Michigan Act 451, Public Acts of 1994, as amended, Part 31. A municipality, business, or industry which violates the Part 21 Rules may be enjoined by action commenced by the Attorney General in a court of competent jurisdiction.)

See the facing page for instructions on completing pages 1 & 2

DEQ USE ONLY	
Permit ID #	Supplication #

PLEASE TYPE OR PRINT

1. NPDES PERMIT or COC NUMBER		Where addresses are duplicate you may indicate so (e.g. facility address is the same as the application mailing address).					
2. APPLICANT ADDRESS	Company Name City of Plainwell		3. APPLICATION CONTACT	Contact Name Bryan D. Pond			
	Waste Water Treatment Plant			City of Plainwell WWTP			
	Street Address or P.O. Box 141 N. Main St.			Street Address or P.O. Box 129 Fairlane St.			
	City Plainwell	State Mi.		ZIP Code 49080	City Plainwell	State Mi.	ZIP Code 49080
	Telephone (with area code) 616 685 6821			FAX (with area code) 616 685-7282		Telephone (with area code) 616-685-5153	
e-mail address		e-mail address		e-mail address		e-mail address	
4. FACILITY MAILING ADDRESS	Facility Name City of Plainwell		5. FACILITY CONTACT	Contact Name Same as #3 Application Contact			
	Waste Water Treatment Plant						
	Street Address or P.O. Box 129 Fairlane St.			Street Address or P.O. Box			
	City Plainwell	State Mi.		ZIP Code 49080	City	State	ZIP Code
	Telephone (with area code) 616 685-5153			FAX (with area code) 616-685-1994		Telephone (with area code)	
e-mail address		e-mail address		e-mail address		e-mail address	
6. FACILITY LOCATION ADDRESS	Facility Name City of Plainwell		7. DISCHARGE MONITORING REPORTS	Contact Name Same as #3 Application Contact			
	Waste Water Treatment Plant						
	Street Address 129 Fairlane St.			Street Address or P.O. Box			
	City Plainwell	State Mi.		ZIP Code 49080	City	State	ZIP Code
	Telephone (with area code) 616 685-5153			FAX (with area code) 616-685-1994		Telephone (with area code)	
e-mail address		e-mail address		e-mail address		e-mail address	
8. BIOSOLIDS BILLING	Contact Name Bryan D. Pond		9. STORM WATER BILLING	Contact Name N/A			
	City of Plainwell WWTP						
	Street Address or P.O. Box 141 N. Main St.			Street Address or P.O. Box			
	City Plainwell	State Mi.		ZIP Code 49080	City	State	ZIP Code
	Telephone (with area code) 616-685-6821			FAX (with area code) 616-685-7282		Telephone (with area code)	
e-mail address		e-mail address		e-mail address		e-mail address	



Michigan Department of Environmental Quality- Surface Water Quality Division  
**WASTEWATER DISCHARGE PERMIT APPLICATION**  
 SECTION I - General Information

PLEASE TYPE OR PRINT

FACILITY NAME <b>City of Plainwell WWTP</b>	NPDES PERMIT or COC NUMBER <b>MI00020491</b>
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10. PERMIT ACTION REQUESTED (Check one box only) (see instructions page iv)

☐ **NEW**, proposed discharge ("New Use" OR an "Existing" discharge currently unpermitted ).

☒ **REISSUANCE** of current permit.

☐ Check here if the permit reissuance proposes an increased loading of pollutants to the receiving water ("Increased Use"). Attach a description of the proposed "increased use".

☐ **MODIFICATION** of current permit.

☐ Check here if the request includes an increased loading of pollutants to the receiving water ("Increased Use"). Attach a description of the proposed modification:

☐ **GENERAL PERMIT COVERAGE**: Check here if you wish to be considered for coverage under a general permit. (see appendix Table 10)

☐ Check here if you are applying to land apply biosolids in Michigan. Out of state and Groundwater discharger's see instructions on page iv.

11. RULE 1098 DEMONSTRATION (see instructions page iv)

In accordance with Rule 323.1098 of the Part 4 Rules, the permittee must submit a Rule 323.1098 Demonstration for any new or increased loading of pollutants to the surface waters of the state. Has the "New", "Existing Unpermitted", "Reissuance" (with increased use) or "Modification (with increased use) box in question 10 above, been checked? (see appendix for information)

☐ Yes, Submit a Rule 323.1098 demonstration (refer to Rule 323.1098, page 4 in the appendix for instructions). Questions should be directed to the appropriate district office (see page 2 and 3 in the appendix).

☒ No, Continue with Item 12.

12. ADDITIONAL FACILITY LOCATION INFORMATION (see instructions on page iv)

A: County / Township	County <b>Allegan</b>	Township <b>N/A</b>
B: State Planar Coordinates	<div style="display: flex; justify-content: space-between;"> <span>1/4, 1/4</span> <span>1/4 Section</span> </div> <div style="display: flex; justify-content: space-between;"> <span><b>NW</b></span> <span><b>NE</b></span> <span><b>30</b></span> </div>	<div style="display: flex; justify-content: space-between;"> <span>Town</span> <span>Range</span> </div> <div style="display: flex; justify-content: space-between;"> <span><b>1 N</b></span> <span><b>11 W</b></span> </div>
C: Latitude / Longitude (to the nearest 15 seconds)	Latitude <b>42° 26' 55"</b>	Longitude <b>85° 39' 8"</b>

13. CERTIFIED OPERATOR (see instructions on page iv)

Does the facility have a certified operator? ☒ Yes ☐ No

Operator's Name: **BRYAN D. POND**

Certification Number: **8150**

Certification Classification(s): **"A"**

14. OTHER ENVIRONMENTAL PERMITS

Provide the information requested below for any other federal, state or local environmental permits in effect or applied for at the time of submittal of this application form; including, but not limited to, permits issued under any of the following programs: Air Pollution Control, Hazardous Waste Management, Wetlands Protection, Soil Erosion and Sedimentation Control, and other NPDES permits. Include any additional information on 8 1/2" x 11" paper as an attachment to this application.

Issuing Agency	Permit or COC Number	Permit Type
<b>EPA</b>	<b>MI00020494</b>	<b>BIO-SOLIDS</b>
	<b>Discharge # SLD-P</b>	

Michigan Department of Environmental Quality- Surface Water Quality Division  
**WASTEWATER DISCHARGE PERMIT APPLICATION**  
 SECTION I - General Information

PLEASE TYPE OR PRINT

FACILITY NAME <b>City of Plainwell WWTP</b>	NPDES PERMIT or COC NUMBER <b>MI 0820491</b>
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**15. WATER FLOW DIAGRAM AND NARRATIVE DESCRIPTION**

Provide a flow diagram (using 8 1/2" x 11" paper if possible) showing the wastewater flow through the facility including all treatment units, processes and bypass piping, and a narrative description of the water flow through the facility from intake to discharge. Show all operations contributing wastewater and the locations of flow meters, chemical feeds and discharge points. The water balance shall show daily average flow rates at intake and discharge points and approximate daily flow rates between treatment units including influent and treatment rates. Use actual measurements whenever available, otherwise use your best estimate. Show all significant losses of water to products, atmosphere and discharge.

**Municipal Facilities** - Include a narrative that briefly describes the history of the wastewater treatment facility. Include information describing when it was first constructed, what improvements have been made, future plans for upgrade, and other pertinent information.

**Industrial and Commercial Facilities** - The line diagram shall include all operations contributing wastewater including process and production areas, sanitary flows, cooling water and storm water runoff. Include a narrative which provides a brief description of the manufacturing processes.

**ATTACH THIS INFORMATION TO THIS APPLICATION PLEASE DO NOT BIND THIS INFORMATION**

**16. MAP OF FACILITY AND DISCHARGE LOCATION**

Provide a detailed map on 8 1/2" x 11" paper showing the location of the existing or proposed facility, wastewater and biosolid treatment system(s), and wastewater discharge points into receiving waters (including bypasses). Include the exact location of the wastewater discharge point(s) and all areas through which the discharge flows (e.g. wetlands, open drains, storm sewers), if applicable, between the discharge point and the receiving water. If the discharge is to a storm sewer, label the storm sewer and show its flow path to the receiving water. Also include the location of any water supply wells and groundwater monitoring wells. This map shall be a United States Geological Survey Quadrangle (7.5 minute series) or other map of comparable detail, scale and quality (which shows surface waterbodies, roads, and other pertinent landmarks). The minimum area this map shall encompass is approximately one mile beyond property boundaries.

**ATTACH THIS INFORMATION TO THIS APPLICATION**

**17. LIST ADJACENT PROPERTY OWNERS**

List the names and addresses of all property owners adjacent to the facility, treatment systems, and discharge locations. List this information in the space provided below or include the information as an attachment on 8 1/2" x 11" paper. If additional space is necessary, copy this blank page and attach this information to this application.

Name	Address	City	State	ZIP Code
Big Boy Restaurant	618 Allegan St.	Plainwell	MI	49080
Plainwell Paper Inc.	200 Allegan St.	Plainwell	MI	49080
Comfort Inn	622 Allegan St.	Plainwell	MI	49080
City of Plainwell D.P.W.	126 Fairlane St.	Plainwell	MI	49080

Michigan Department of Environmental Quality- Surface Water Quality Division  
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SECTION I - General Information

PLEASE TYPE OR PRINT

FACILITY NAME <u>City of Plainwell WWTP</u>	NPDES PERMIT or COC NUMBER <u>MI0020491</u>
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18. ALTERNATE POWER SOURCE

If you are applying for a New or Existing Unpermitted discharge, continue to Section II or Section III.

Applicants with an approved Alternate Power Source Report shall indicate any changes that have been made to the alternate power source serving the facility in the past five years. Submit the new information with the application and provide specific information regarding the appropriate pump station or treatment unit the alternate power source serves.

A. Indicate if the facility has a back-up source of power and if emergency procedures have been developed in case of a power outage to the facility.

☒ Yes, Continue to B. ☐ No. ☐ Not Applicable.

B. Has an Alternate Power Source Report been approved by the DEQ? (1-1-92)

☒ Yes, Continue to C. ☐ No.

C. Have changes been made that have not been reported to DEQ since the Report was approved?

☐ Yes, Submit the information as an attachment to this application. ☒ No.

This completes Section I. Facilities requesting authorization to only discharge sanitary wastewaters continue with Section II. Other facilities requesting authorization to discharge wastewater continue with Section III. Section I shall be accompanied by either Section II or Section III of this application. If you need assistance in determining the appropriate Sections to complete, contact the district office (see Pages 2 and 3 in the appendix for district office addresses and a map of district boundaries).



Michigan Department of Environmental Quality- Surface Water Quality Division  
**WASTEWATER DISCHARGE PERMIT APPLICATION**  
**SECTION II - Sanitary Wastewater**

**A. Facility Information**

Section II is to be completed by Publicly Owned Treatment Works discharging treated or untreated sanitary and industrial wastewater to the surface waters. Section II is also to be completed by all privately owned treatment facilities discharging treated sanitary wastewater to the surface waters. The privately owned treatment facilities in this category generally include Mobile Home Parks, Campgrounds, Condominiums, Hotels and Motels, Nursing Homes, etc.

PLEASE TYPE OR PRINT

FACILITY NAME <u>City of Plainwell WWTP</u>	NPDES PERMIT or COC NUMBER <u>MI0020491</u>
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**1. SERVICE AREA INFORMATION**

A. Enter the source(s) of water supply serving the sewered service area. Identify groundwater wells, surface water intakes and the name(s) of any surface water(s) from which intake water is drawn. Groundwater wells located within the City of Plainwell Otsego township, Gun Plain Township, and the Village of Martin.

**Publicly Owned Treatment Works shall provide the following information:**

B. List the governmental jurisdictions (cities, townships, villages, etc.) that this facility serves.

Name	Population Served	Type of Collection System	Ownership
<u>Otsego Township</u>	<u>400</u>	<u>force main, gravity</u>	<u>Township</u>
<u>Gun Plain Township</u>	<u>204</u>	<u>force main, gravity</u>	<u>Township</u>
<u>Village of Martin</u>	<u>276</u>	<u>force main, gravity</u>	<u>Township</u>
<u>City of Plainwell</u>	<u>4,200</u>	<u>force main, gravity</u>	<u>City</u>

C. Enter the total population served by this facility. 5080 (est)

**Privately Owned Treatment Works shall provide the following information:**

D. Enter the number of residential units served by this facility. N/A

E. Describe the service area (mobile home park, condominium, nursing home, industrial facility, etc.). N/A

**2. BIOMONITORING FOR ACUTE AND CHRONIC TOXICITY**

Publicly Owned Treatment Works (POTWs) with facility design flows of one (1) million gallons per day or greater, POTWs with approved Federal Industrial Pretreatment Programs (FIPP), and POTWs required to develop Federal Pretreatment Programs (FIPP), shall include whole-effluent toxicity (WET) test data with this application.

The WET testing requirement can be met by conducting chronic toxicity tests on two test species for at least four sampling periods and submitting the test results with the application. Sampling periods shall be quarterly for a 12-month period prior to this application, or annually in the four and one-half years prior to this application. Test species shall include fathead minnows and Ceriodaphnia dubia unless alternative species are approved by the Department. Testing and reporting shall follow procedures contained in EPA 40 CFR Part 136 (Federal Register, 53529 October 16, 1995) unless alternative methods are approved by the Department. Current methods are contained in EPA/600/4-91/002, "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms". The chronic toxicity tests shall be conducted and reported such that the acute toxicity of the effluent to the two test species can be determined. Acute toxicity test data and respective median lethal concentration (LC<sub>50</sub>) values at 96 hours (fathead minnow) and 48 hours (Ceriodaphnia) shall be included in the reporting of the chronic toxicity test results.

The applicant may request approval to reduce this application requirement to acute toxicity testing only based on high receiving water dilution or other site-specific factors. An 80:1 or greater dilution ratio of the receiving water 95% exceedance drought flow to facility design flow may justify reduction to acute testing only. Such requests, with supporting rationale, shall be made in writing to the appropriate District Supervisor of the Surface Water Quality Division (see pages 2 and 3 of the appendix).

The biomonitoring described above will meet the whole-effluent biological testing requirement of the federal regulation under 40 CFR 122.21 for municipal applicants. If you need assistance in determining if this facility shall submit WET data, or if acute toxicity testing only may be allowable, contact the appropriate district office (see pages 2 and 3 of the appendix).

Michigan Department of Environmental Quality- Surface Water Quality Division  
**WASTEWATER DISCHARGE PERMIT APPLICATION**  
**SECTION II - Sanitary Wastewater**

**B. Outfall Information**

**INSTRUCTIONS FOR COMPLETING SECTION II, ITEM 3.**

This item requests detailed information about flow variation of the facility and the location(s) of the outfall(s), frequency of discharge and volume of effluent discharged. Outfall refers to any discharge of treated or untreated wastewater. Outfalls include discharges from the treatment facility, retention basins, equalization treatment basins, underdrains, CSO's, etc. Please provide the information below for each individual outfall from which wastewater discharges (main outfall(s), retention basins, underdrains, etc.). Fill in the Outfall Number in the top right hand box, identify the outfall by number, e.g., 001, 002, etc. (applicants with existing NPDES permits should refer to the facility's current NPDES permit for outfall numbers identification).

- A. **WATERSHED:** Identify the receiving stream's watershed. Each receiving stream will eventually discharge into one of the Great Lakes or one of the connecting waters (i.e. Detroit River, St. Mary's River, St. Clare River). Indicate from which river the discharge eventually discharges to the Great Lakes. For example: Sycamore Creek is tributary to the Red Cedar River, which is tributary to the Grand River, which discharges to Lake Michigan. Therefore a discharge to the Sycamore Creek is a discharge to the Grand River Watershed.
- B. **RECEIVING STREAM:** Identify the exact location of the wastewater discharge point(s) and all areas through which the discharge flows (e.g. storm sewers, open drains, wetlands), if applicable, between the discharge point and the receiving water. Examples of receiving waters are rivers, creeks, drains, etc.
- C. **COUNTY / TOWNSHIP:** Provide the county and township where the point of discharge is located.
- D. **STATE PLANAR COORIDINATES:** Provide the location of the discharge to the receiving water in State Planar Coordinates. Report State Planar Coordinates using quarter-quarter section, quarter section, section, town and range (e.g., NE 1/4, SE 1/4, Section 34, T1N, R12E).
- E. **LATITUDE / LONGITUDE:** Provide the latitude and longitude of the discharge to the nearest 15 seconds (e.g., Latitude = 42°27'15", Longitude = 83°02'30").
- F. **SEASONAL DISCHARGE:** If the treatment facility discharges from one to seven days per week throughout the year, check "No" and continue with Item G. If the facility stores wastewater that accumulates throughout the year and discharges it a few weeks or months a year, after treatment, check "YES" and provide the dates the facility discharges (e.g., October 15 through November 10).
- G. **DISCHARGE DURATION AND FREQUENCY:** Enter the approximate hours per day and the number of days per year that the discharge occurs from this outfall. Sequencing Batch Reactors (SBRs) shall enter the number of discharges per day and the duration of each discharge (in hours per day).
- H. **FACILITY DESIGN FLOW:** Enter the annual average design flow in millions of gallons per day (MGD) that the facility is designed to treat. Seasonal dischargers shall enter the total volume (million gallons per year, MGY) of wastewater the facility is designed to treat and discharge per year. This number will be used in determination of appropriate effluent limitations.
- I. **EXPECTED DISCHARGE FLOWS:** Provide the information requested regarding the expected or measured variability of flow from this facility, if available. This information shall be representative of what you expect to discharge during the next five years.

Michigan Department of Environmental Quality- Surface Water Quality Division  
**WASTEWATER DISCHARGE PERMIT APPLICATION**

**SECTION II - Sanitary Wastewater**

**B. Outfall Information**

Complete a separate Section II. B. Outfall Information (pages 7 - 14) for each outfall at the facility. Make copies of this blank section of the application if necessary.

PLEASE TYPE OR PRINT

FACILITY NAME <u>City of Plainwell WWTP</u>	NPDES PERMIT or COC NUMBER <u>ME0020491</u>	OUTFALL NUMBER <u>001A</u>
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3. OUTFALL INFORMATION (see page 6 for instruction on completion of this page)

A.	Watershed <u>Kalamazoo River</u>
B.	Receiving Water <u>Kalamazoo River</u>
C.	County <u>Allegan</u> Township <u>N/A</u>
D.	<div style="display: flex; justify-content: space-between;"> <div> <math>\frac{1}{4}</math>, <math>\frac{1}{4}</math>  <u>NW</u>      <u>NE</u>      <math>\frac{1}{4}</math> </div> <div>Section <u>30</u></div> <div> Town <u>1N</u>  Range <u>11W</u> </div> </div>
E.	<div style="display: flex; justify-content: space-between;"> <div>Latitude (to nearest 15 seconds) <u>42° 26' 59"</u></div> <div>Longitude (to nearest 15 seconds) <u>85° 39' 02"</u></div> </div>

F. Is this a Seasonal Discharge?

☐ Yes, List the discharge periods (by month) in the space provided below.      ☒ No, Continue with item F.

From	Through	From	Through
From	Through	From	Through

G. How often is there a discharge from this outfall (on the average)?

Hours/Day <u>24hrs/day</u>	Days/Year <u>365/YR</u>	Number of Discharges / Day (Sequencing Batch Reactors) <u>N/A</u>
----------------------------	-------------------------	--

H. Facility Design Flows:

Annual Average Design Flow (MGD) 1.3      Annual Total - Seasonal Dischargers Only (MGY) \_\_\_\_\_

I. Expected Discharge Flow (provide what you know or can obtain in the spaces below):

Annual Average	Weekly Maximum	Daily Maximum	2-Hour Maximum	Maximum Dry Weather	Maximum Wet Weather
<u>.491</u> MGD	<u>.550</u> MGD	<u>.700</u> MGD	<u>1.4</u> MGD	<u>.636</u> MGD	<u>.700</u> MGD

Flow in Million Gallons per Day (MGD)

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Continuous Dischargers Daily Average	<u>.476</u>	<u>.472</u>	<u>.477</u>	<u>.501</u>	<u>.504</u>	<u>.512</u>	<u>.521</u>	<u>.520</u>	<u>.500</u>	<u>.496</u>	<u>.469</u>	<u>.456</u>
Seasonal Dischargers Daily Maximum												

Michigan Department of Environmental Quality- Surface Water Quality Division  
**WASTEWATER DISCHARGE PERMIT APPLICATION**  
 SECTION II - Sanitary Wastewater

B. Outfall Information

PLEASE TYPE OR PRINT

FACILITY NAME <u>City of Plainwell WWTP</u>	NPDES PERMIT or COC NUMBER <u>MI0020491</u>	OUTFALL NUMBER <u>001A</u>
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4. EFFLUENT CHARACTERISTICS - CONVENTIONAL POLLUTANTS

Report existing or projected discharge data for the listed parameters. Existing facilities shall provide effluent analytical data for the following parameters. However, applicants for new uses need only report either Carbonaceous BOD<sub>5</sub> or BOD<sub>5</sub>. Data that is available for parameters not specifically listed in this page shall be provided in the blank areas of this page or included as an attachment on 8 1/2" x 11" paper. Analytical methods approved pursuant to 40 CFR Part 136, shall be used for analysis of all parameters. (See pages ii and iii for sampling definitions, including "daily concentration" and "monthly concentration".)

Check this box if additional information is included as an attachment.

Parameter	Maximum Daily Concentration	Maximum Monthly Concentration	Units	Number of Analyses	Sample Type
Biochemical Oxygen Demand - five day (BOD <sub>5</sub> )	N/A	N/A	mg/l	N/A	<input type="checkbox"/> Grab <input checked="" type="checkbox"/> 24 Hr Comp
BOD <sub>5</sub> , % Removal	Do Not Use	N/A	%	N/A	<input type="checkbox"/> Grab <input checked="" type="checkbox"/> 24 Hr Comp
Carbonaceous BOD <sub>5</sub> (CBOD <sub>5</sub> )	62	16	mg/l	182	<input type="checkbox"/> Grab <input checked="" type="checkbox"/> 24 Hr Comp
Carbonaceous BOD <sub>5</sub> , % Removal	Do Not Use	96.2	%	174	<input type="checkbox"/> Grab <input checked="" type="checkbox"/> 24 Hr Comp
Ammonia Nitrogen (as N)	19.7	10.5	mg/l	50	<input type="checkbox"/> Grab <input checked="" type="checkbox"/> 24 Hr Comp
Total Suspended Solids	40	17	mg/l	248	<input type="checkbox"/> Grab <input checked="" type="checkbox"/> 24 Hr Comp
Total Suspended Solids, % Removal	Do Not Use	95.2	%	247	<input type="checkbox"/> Grab <input checked="" type="checkbox"/> 24 Hr Comp
Total Dissolved Solids	N/A	N/A	mg/l	N/A	<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
Total Phosphorus (as P)	2.77	.91	mg/l	251	<input type="checkbox"/> Grab <input checked="" type="checkbox"/> 24 Hr Comp
Fecal Coliform Bacteria (report geometric means)	max. 7-day 238	121	counts/100 ml	247	<input type="checkbox"/> Grab
Total Residual Chlorine	.010	0.000	<input type="checkbox"/> µg/l <input checked="" type="checkbox"/> mg/l	CONT.	<input type="checkbox"/> Grab
Dissolved Oxygen	min. daily 4.0	Do Not Use	mg/l	364	<input type="checkbox"/> Grab
pH (report maximum and minimum of individual samples)	minimum 6.5	maximum 7.9	Standard Units	365	<input type="checkbox"/> Grab
					<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
					<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
					<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
					<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp
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 SECTION II - Sanitary Wastewater

**B. Outfall Information**

PLEASE TYPE OR PRINT

FACILITY NAME <b>City of Plainwell WWTP</b>	NPDES PERMIT or COC NUMBER <b>MI 0020491</b>	OUTFALL NUMBER <b>001A</b>
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**5 EXPANDED EFFLUENT TESTING DATA**

Publicly Owned Treatment Works (POTWs) with a design flow greater than or equal to 1.0 mgd or POTWs with an approved Federal Industrial Pretreatment Program (FIPP), or POTWs required to develop a Federal Industrial Pretreatment Program (FIPP) or POTWs otherwise required by the permitting authority to provide the information, must provide effluent testing data for the following pollutants. Provide the indicated effluent testing information and any other information required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analyses conducted using 40 CFR Part 136 methods. In addition, these data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. Indicate in the blank rows provided below any data you may have on pollutants not specifically listed in this form. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old. (Complete once for each outfall discharging effluent to waters of the state.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML / MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
<b>METALS (TOTAL RECOVERABLE), CYANIDE, PHENOLS, AND HARDNESS</b>											
ANTIMONY	<0.002	mg/L	<0.008	lbs	<0.002	mg/L	<0.008	lbs	3	EPA 200.8	.002 mg/L
ARSENIC	<0.001	mg/L	<0.004	lbs	<0.001	mg/L	<0.004	lbs	3	EPA 200.8	.001 mg/L
BERYLLIUM	<0.001	mg/L	<0.004	lbs	<0.001	mg/L	<0.004	lbs	3	EPA 200.8	.001 mg/L
CADMIUM	<0.002	mg/L	<0.008	lbs	<0.002	mg/L	<0.008	lbs	3	EPA 200.8	.002 mg/L
CHROMIUM	.013	mg/L	.053	lbs	.006	mg/L	.024	lbs	3	EPA 200.8	.001 mg/L
COPPER	.015	mg/L	.061	lbs	.009	mg/L	.038	lbs	3	EPA 200.8	.001 mg/L
LEAD	<0.001	mg/L	<0.004	lbs	<0.001	mg/L	<0.004	lbs	3	EPA 200.8	.001 mg/L
MERCURY	<0.0002	mg/L	<0.008	lbs	<0.0002	mg/L	<0.008	lbs	3	EPA 245.2	.0002 mg/L
NICKEL	.006	mg/L	.024	lbs	.006	mg/L	.024	lbs	3	EPA 200.8	.001 mg/L
SELENIUM	<.002	mg/L	<.008	lbs	<.002	mg/L	<.008	lbs	3	EPA 270.2	.002 mg/L
SILVER	.0030	mg/L	.012	lbs	<.0013	mg/L	<.0056	lbs	3	EPA 200.8	.0005 mg/L
THALLIUM	<.002	mg/L	<.008	lbs	<.002	mg/L	<.008	lbs	3	EPA 200.8	.002 mg/L
ZINC	.032	mg/L	.130	lbs	.08	mg/L	.32	lbs	3	EPA 200.8	.001 mg/L
CYANIDE	<.005	mg/L	<.020	lbs	<.005	mg/L	<.020	lbs	3	EPA 335.2	.005 mg/L
TOTAL PHENOLIC COMPOUNDS	<5	ug/L	<.020	lbs	<5	mg/L	<.020	lbs	3	EPA 335.2	.5 ug/L
HARDNESS (AS CaCO3)	308	mg/L	1262	lbs	306	mg/L	1253	lbs	3	SM(18) 2340-B	5 mg/L
USE THIS SPACE (OR SEPARATE SHEET) TO PROVIDE INFORMATION ON OTHER METALS REQUESTED BY THE PERMIT WRITER											



Michigan Department of Environmental Quality- Surface Water Quality Division  
**WASTEWATER DISCHARGE PERMIT APPLICATION**  
 SECTION II - Sanitary Wastewater

PLEASE TYPE OR PRINT

FACILITY NAME <b>City of Plainwell WWTP</b>					NPDES PERMIT OR COC NUMBER <b>1710020491</b>					OUTFALL NUMBER <b>001A</b>	
POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML / MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number Of Samples		
<b>VOLATILE ORGANIC COMPOUNDS</b>											
ACROLEIN	<5	ug/L	<.020	lbs	<5	ug/L	<.020	lbs	3	EPA 624	5 ug/L
ACRYLONITRILE	<1	ug/L	<.004	lbs	<1	ug/L	<.004	lbs	3	EPA 624	1 ug/L
BENZENE	<1	ug/L	<.004	lbs	<1	ug/L	<.004	lbs	3	EPA 624	1 ug/L
BROMOFORM	<1	ug/L	<.004	lbs	<1	ug/L	<.004	lbs	3	EPA 624	1 ug/L
CARBON TETRACHLORIDE	<1	ug/L	<.004	lbs	<1	ug/L	<.004	lbs	3	EPA 624	1 ug/L
CLOROBENZENE	<1	ug/L	<.004	lbs	<1	ug/L	<.004	lbs	3	EPA 624	1 ug/L
CHLORODIBROMO-METHANE	<1	ug/L	<.004	lbs	<1	ug/L	<.004	lbs	3	EPA 624	1 ug/L
CHLOROETHANE	<1	ug/L	<.004	lbs	<1	ug/L	<.004	lbs	3	EPA 624	1 ug/L
2-CHLORO-ETHYL VINYL	<1	ug/L	<.004	lbs	<1	ug/L	<.004	lbs	3	EPA 624	1 ug/L
ETHER	LISTED ABOVE AS TESTED										
CHLOROFORM	<1	ug/L	<.004	lbs	<1	ug/L	<.004	lbs	3	EPA 624	1 ug/L
DICHLOROBROMO-METHANE	<1	ug/L	<.004	lbs	<1	ug/L	<.004	lbs	3	EPA 624	1 ug/L
1,1-DICHLOROETHANE	<1	ug/L	<.004	lbs	<1	ug/L	<.004	lbs	3	EPA 624	1 ug/L
1,2-DICHLOROETHANE	<1	ug/L	<.004	lbs	<1	ug/L	<.004	lbs	3	EPA 624	1 ug/L
TRANS-1,2-DICHLORO-ETHYLENE	<1	ug/L	<.004	lbs	<1	ug/L	<.004	lbs	3	EPA 624	1 ug/L
1,1-DICHLOROETHYLENE	<1	ug/L	<.004	lbs	<1	ug/L	<.004	lbs	3	EPA 624	1 ug/L
1,2-DICHLOROPROPANE	<1	ug/L	<.004	lbs	<1	ug/L	<.004	lbs	3	EPA 624	1 ug/L
1,3-DICHLORO-PROPYLENE	<1	ug/L	<.004	lbs	<1	ug/L	<.004	lbs	3	EPA 624	1 ug/L
ETHYLBENZENE	<1	ug/L	<.004	lbs	<1	ug/L	<.004	lbs	3	EPA 624	1 ug/L
METHYL BROMIDE	<1	ug/L	<.004	lbs	<1	ug/L	<.004	lbs	3	EPA 624	1 ug/L
METHYL CHLORIDE	<1	ug/L	<.004	lbs	<1	ug/L	<.004	lbs	3	EPA 624	1 ug/L
METHYLENE CHLORIDE	<1	ug/L	<.004	lbs	<1	ug/L	<.004	lbs	3	EPA 624	<1 ug/L
1,1,2,2-TETRACHLORO-ETHANE	<1	ug/L	<.004	lbs	<1	ug/L	<.004	lbs	3	EPA 624	1 ug/L
TETRACHLORO-ETHYLENE	<1	ug/L	<.004	lbs	<1	ug/L	<.004	lbs	3	EPA 624	1 ug/L
TOLUENE	3.9	ug/L	.015	lbs	<1.9	ug/L	<.007	lbs	3	EPA 624	1 ug/L
1,1,1-TRICHLOROETHANE	<1	ug/L	<.004	lbs	<1	ug/L	<.004	lbs	3	EPA 624	1 ug/L
1,1,2-TRICHLOROETHANE	<1	ug/L	<.004	lbs	<1	ug/L	<.004	lbs	3	EPA 624	1 ug/L
TRICHLORETHYLENE	<1	ug/L	<.004	lbs	<1	ug/L	<.004	lbs	3	EPA 624	1 ug/L

Michigan Department of Environmental Quality- Surface Water Quality Division  
**WASTEWATER DISCHARGE PERMIT APPLICATION**  
 SECTION II - Sanitary Wastewater

B. Outfall Information

PLEASE TYPE OR PRINT

FACILITY NAME <b>City of Plainwell WWTP</b>					NPDES PERMIT OR COC NUMBER <b>MI 0020491</b>					OUTFALL NUMBER <b>001A</b>	
POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML / MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number Of Samples		
VINYL CHLORIDE	<1	ug/L	<.004	lbs	<1	ug/L	<.004	ug/L	3	EPA 624	1ug/L
USE THIS SPACE (OR SEPARATE SHEET) TO PROVIDE INFORMATION ON OTHER VOLATILE ORGANIC COMPOUNDS REQUESTED BY THE PERMIT WRITER											
<b>ACID-EXTRACTABLE COMPOUNDS</b>											
P-CHLORO-M-CRESOL	<5	ug/L	<.020	lbs	<5	ug/L	<.020	ug/L	3	EPA 8270	5 ug/L
2-CHLOROPHENOL	<5	ug/L	<.020	lbs	<5	ug/L	<.020	ug/L	3	EPA 8270	5 ug/L
2,4-DICHLOROPHENOL	<5	ug/L	<.020	lbs	<5	ug/L	<.020	ug/L	3	EPA 8270	5 ug/L
2,4-DIMETHYLPHENOL	<5	ug/L	<.020	lbs	<5	ug/L	<.020	ug/L	3	EPA 8270	5 ug/L
4,6-DINITRO-O-CRESOL	<20	ug/L	<.082	lbs	<5	ug/L	<.020	ug/L	3	EPA 8270	20 ug/L
2,4-DINITROPHENOL	<20	ug/L	<.082	lbs	<5	ug/L	<.020	ug/L	3	EPA 8270	20 ug/L
2-NITROPHENOL	<5	ug/L	<.020	lbs	<5	ug/L	<.020	ug/L	3	EPA 8270	5 ug/L
4-NITROPHENOL	<20	ug/L	<.082	lbs	<5	ug/L	<.020	ug/L	3	EPA 8270	20 ug/L
PENTACHLOROPHENOL	<5	ug/L	<.020	lbs	<5	ug/L	<.020	ug/L	3	EPA 8270	5 ug/L
PHENOL	<5	ug/L	<.020	lbs	<5	ug/L	<.020	ug/L	3	EPA 8270	5 ug/L
2,4,6-TRICHLOROPHENOL	<5	ug/L	<.020	lbs	<5	ug/L	<.020	ug/L	3	EPA 8270	5 ug/L
USE THIS SPACE (OR SEPARATE SHEET) TO PROVIDE INFORMATION ON OTHER ACID-EXTRACTABLE COMPOUNDS REQUESTED BY THE PERMIT WRITER											
<b>BASE-NEUTRAL COMPOUNDS</b>											
ACENAPHTHENE	<5	ug/L	<.020	lbs	<5	ug/L	<.020	ug/L	3	EPA 8270	5 ug/L
ACENAPHTHYLENE	<5	ug/L	<.020	lbs	<5	ug/L	<.020	ug/L	3	EPA 8270	5 ug/L
ANTHRACENE	<5	ug/L	<.020	lbs	<5	ug/L	<.020	ug/L	3	EPA 8270	5 ug/L
BENZIDINE	<50	ug/L	<.20	lbs	<50	ug/L	<.20	ug/L	3	EPA 8270	50 ug/L
BENZO(A)ANTHRACENE	<5	ug/L	<.020	lbs	<5	ug/L	<.020	ug/L	3	EPA 8270	5 ug/L
3,4 BENZO-FLUORANTHENE	<5	ug/L	<.020	lbs	<5	ug/L	<.020	ug/L	3	EPA 8270	5 ug/L
BENZO(GHI)PERYLENE	<5	ug/L	<.020	lbs	<5	ug/L	<.020	ug/L	3	EPA 8270	5 ug/L
BENZO(K)FLUORANTHENE	<5	ug/L	<.020	lbs	<5	ug/L	<.020	ug/L	3	EPA 8270	5 ug/L
BIS (2-CHLOROETHOXY) METHANE	<5	ug/L	<.020	lbs	<5	ug/L	<.020	ug/L	3	EPA 8270	5 ug/L
BIS (2-CHLOROETHYL)-ETHER	<5	ug/L	<.020	lbs	<5	ug/L	<.020	ug/L	3	EPA 8270	5 ug/L
BIS (2-CHLOROISO-PROPYL)	<5	ug/L	<.020	lbs	<5	ug/L	<.020	ug/L	3	EPA 8270	5 ug/L

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B. Outfall Information

PLEASE TYPE OR PRINT

FACILITY NAME <i>City of Plainwell WWTP</i>					NPDES PERMIT OR COC NUMBER <i>MT 0020491</i>					OUTFALL NUMBER <i>001A</i>		
POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML / MDL	
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number Of Samples			
ETHER	<i>— LISTED BELOW AS TESTED —</i>											
BIS (2-ETHYLHEXYL) PHTHALATE	<i>12</i>	<i>ug/L</i>	<i>.049</i>	<i>lbs</i>	<i>9.3</i>	<i>ug/L</i>	<i>.038</i>	<i>lbs</i>	<i>3</i>	<i>EPA 8270</i>	<i>5 ug/L</i>	
4-BROMOPHENYL PHENYL ETHER	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>3</i>	<i>EPA 8270</i>	<i>5 ug/L</i>	
BUTYL BENZYL PHTHALATE	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>3</i>	<i>EPA 8270</i>	<i>5 ug/L</i>	
2-CHLORONAPHTHALENE	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>3</i>	<i>EPA 8270</i>	<i>5 ug/L</i>	
4-CHLOROPHENYL PHENYL ETHER	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>3</i>	<i>EPA 8270</i>	<i>5 ug/L</i>	
CHRYSENE	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>3</i>	<i>EPA 8270</i>	<i>5 ug/L</i>	
DI-N-BUTYL PHTHALATE	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>3</i>	<i>EPA 8270</i>	<i>5 ug/L</i>	
DI-N-OCTYL PHTHALATE	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>3</i>	<i>EPA 8270</i>	<i>5 ug/L</i>	
DIBENZO(A,H) ANTHRACENE	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>3</i>	<i>EPA 8270</i>	<i>5 ug/L</i>	
1,2-DICHLOROBENZENE	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>3</i>	<i>EPA 8270</i>	<i>5 ug/L</i>	
1,3-DICHLOROBENZENE	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>3</i>	<i>EPA 8270</i>	<i>5 ug/L</i>	
1,4-DICHLOROBENZENE	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>3</i>	<i>EPA 8270</i>	<i>5 ug/L</i>	
3,3-DICHLOROBENZIDINE	<i>&lt;20</i>	<i>ug/L</i>	<i>&lt;.082</i>	<i>lbs</i>	<i>&lt;20</i>	<i>ug/L</i>	<i>&lt;.082</i>	<i>lbs</i>	<i>3</i>	<i>EPA 8270</i>	<i>20 ug/L</i>	
DIETHYL PHTHALATE	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>3</i>	<i>EPA 8270</i>	<i>5 ug/L</i>	
DIMETHYL PHTHALATE	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>3</i>	<i>EPA 8270</i>	<i>5 ug/L</i>	
2,4-DINITROTOLUENE	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>3</i>	<i>EPA 8270</i>	<i>5 ug/L</i>	
2,6-DINITROTOLUENE	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>3</i>	<i>EPA 8270</i>	<i>5 ug/L</i>	
1,2-DIPHENYLHYDRAZINE	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>3</i>	<i>EPA 8270</i>	<i>5 ug/L</i>	
FLUORANTHENE	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>3</i>	<i>EPA 8270</i>	<i>5 ug/L</i>	
FLUORENE	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>3</i>	<i>EPA 8270</i>	<i>5 ug/L</i>	
HEXACHLOROBENZENE	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>3</i>	<i>EPA 8270</i>	<i>5 ug/L</i>	
HEXACHLOROBUTADIENE	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>3</i>	<i>EPA 8270</i>	<i>5 ug/L</i>	
HEXACHLOROCYCLO-PENTADIENE	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>3</i>	<i>EPA 8270</i>	<i>5 ug/L</i>	
HEXACHLOROETHANE	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>3</i>	<i>EPA 8270</i>	<i>5 ug/L</i>	
ISOPHORONE	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>3</i>	<i>EPA 8270</i>	<i>5 ug/L</i>	
NAPHTHALENE	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>3</i>	<i>EPA 8270</i>	<i>5 ug/L</i>	
NITROBENZENE	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>&lt;5</i>	<i>ug/L</i>	<i>&lt;.020</i>	<i>lbs</i>	<i>3</i>	<i>EPA 8270</i>	<i>5 ug/L</i>	

Michigan Department of Environmental Quality- Surface Water Quality Division  
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B. Outfall Information

PLEASE TYPE OR PRINT

FACILITY NAME <b>City of Plainwell WWTP</b>					NPDES PERMIT OR COC NUMBER <b>MI0020491</b>					OUTFALL NUMBER <b>001A</b>	
POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML / MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number Of Samples		
N-NITROSODI-N-PROPYLAMINE	<5	ug/L	<0.020	lbs	<5	ug/L	<0.020	lbs	3	EPA 8270	5 ug/L
N-NITROSODI- METHYLAMINE	<5	ug/L	<0.020	lbs	<5	ug/L	<0.020	lbs	3	EPA 8270	5 ug/L
N-NITROSODI-PHENYLAMINE	<5	ug/L	<0.020	lbs	<5	ug/L	<0.020	lbs	3	EPA 8270	5 ug/L
PHENANTHRENE	<5	ug/L	<0.020	lbs	<5	ug/L	<0.020	lbs	3	EPA 8270	5 ug/L
PYRENE	<5	ug/L	<0.020	lbs	<5	ug/L	<0.020	lbs	3	EPA 8270	5 ug/L
1,2,4-TRICHLOROBENZENE	<5	ug/L	<0.020	lbs	<5	ug/L	<0.020	lbs	3	EPA 8270	5 ug/L
USE THIS SPACE (OR SEPARATE SHEET) TO PROVIDE INFORMATION ON OTHER BASE-NEUTRAL COMPOUNDS REQUESTED BY THE PERMIT WRITER											

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B. Outfall Information

PLEASE TYPE OR PRINT

FACILITY NAME <b>City of Pinwell WWTP</b>	NPDES PERMIT OR COC NUMBER <b>MI0020491</b>	OUTFALL NUMBER <b>001A</b>
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**6. EFFLUENT CHARACTERISTICS - TOXIC POLLUTANTS**

This worksheet is to be used by applicants to record information on any Michigan Critical Material, EPA Priority Pollutant, or hazardous substance for which this application requires that data be provided. This includes any substance from Table 3 which lists Organic Toxic Pollutants, Table 4, Other Toxic Pollutants, Table 5, Conventional and Nonconventional Pollutants, Table 6, Toxic Pollutants and Hazardous Substances, Table 7 the Michigan Critical Materials Register, or Table 8 the EPA Priority Pollutant Listing (in the appendix). If the applicant believes a pollutant may be present in the effluent that is not included in these lists, data shall be provided for that pollutant with this application. This information may also be included as an attachment to this application on 8 1/2" x 11" paper. Page 12 of the appendix is a list of minimum testing requirements for various dischargers. As a minimum applicants for those types of discharge must provide analytical data based on that list.

Applicants shall use EPA approved analytical methods when conducting sampling (40 CFR 136). For each parameter provide the name of the parameter as listed in the Tables, the maximum daily and monthly discharge concentrations, units, the number of analyses performed, and the sample type. If analytical results for a composite sample are being provided and the sample is not a 24-hour composite, include a description of the sample collection technique used as an attachment to this application on 8 1/2" x 11" paper. When calculating an average where some values are detectable and others are nondetectable, either provide the actual data, or regard each nondetectable value as the detection level when calculating concentrations and indicate that the result is "less than" the value reported. (See definitions of "daily concentration" and "monthly concentration" in the general provisions at the front of this form.) Please include an explanation if "Pollution Prevention" is expected to provide reductions of pollutants. (See page ii and iii for sampling definitions, including, "daily concentration", and "monthly concentration".) See Table 12 in the appendix for acceptable "Levels of Quantification".

In addition to the maximum daily and maximum monthly concentrations required above the applicant must provide individual sample data to determine if Water Quality Based Effluent Limits (WQBELs) are necessary. If more than 10 individual samples results are available please provide this data in an attachment to the application. WQBELs for toxic pollutants are incorporated into an NPDES permit when the DEQ has determined that a substance is or may be discharged into the receiving waters at a level that has a reasonable potential to exceed the substance's water quality value. The determination is made using the procedure described in the Part 8 Rules of Act 451, Public Acts of 1994 as amended. (See page 7 in the appendix)

Check this box if additional information is included as an attachment.

☒ **see attachment #6**

Toxic Pollutant	Maximum Daily Concentration (µg/l)	Maximum Monthly Concentration (µg/l)	Quantification Level Used (µg/l)	Number of Analyses	Sample Type
Individual Samples (µg/l) <span style="float: right;">(KAR LABS)</span>					
<b>Chromium</b>	13	6	1	3	<input type="checkbox"/> Grab <input checked="" type="checkbox"/> 24 Hr Comp
13 <sup>1</sup> 2 <sup>2</sup> 3 <sup>3</sup> 4    5    6    7    8    9    10					
<b>Copper</b>	15	9.3	1	3	<input type="checkbox"/> Grab <input checked="" type="checkbox"/> 24 Hr Comp
15 <sup>1</sup> 8 <sup>2</sup> 5 <sup>3</sup> 4    5    6    7    8    9    10					
<b>Nickel</b>	9	6.3	1	3	<input type="checkbox"/> Grab <input checked="" type="checkbox"/> 24 Hr Comp
9 <sup>1</sup> 6 <sup>2</sup> 4 <sup>3</sup> 4    5    6    7    8    9    10					

Are any of the above listed toxic pollutants present in the facility's supply water? **NOT RESPONSIBLE FOR DRINKING WATER.**

☒ No, Continue to question 7.

☐ Yes, Please read below.

In accordance with Rule 1211(7), facilities whose supply water contains toxic pollutants that are withdrawn from and discharged to the same body of water may qualify for intake credits for those toxic pollutants. See Rule 1211(7) for qualification and demonstration requirements.

Michigan Department of Environmental Quality- Surface Water Quality Division  
**WASTEWATER DISCHARGE PERMIT APPLICATION**

**SECTION II - Sanitary Wastewater**

**C. Combined Sewer Overflow Information**

PLEASE TYPE OR PRINT

FACILITY NAME <u>City of Plainwell WWTP</u>	NPDES PERMIT or COC NUMBER <u>ME 0020491</u>
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**6. BYPASSES AND COMBINED SEWER OVERFLOWS**

Complete this item if there are outfalls at the treatment facility or along the collection system from which discharges of untreated, or partially treated wastewater occur. This includes outfalls from which **bypasses** of sewage to receiving waters occurs during mechanical or power failures at pump stations or the treatment facility. Other examples include outfalls for combined sewer overflows (CSO). If additional space is needed, make copies of page 16.

A. Indicate if the sanitary sewer system is totally separated from the storm sewer system or if they are combined.

- ☒ Separated. TO THE BEST OF MY KNOWLEDGE, NOT RESPONSIBLE FOR collection system.  
☐ Combined - Estimate what percentage of the sanitary sewer system is combined. \_\_\_\_\_ %

B. Are there any bypass outfalls or combined sewer overflows (either at the facility or along the collection system)?

- ☒ No. Go to Item 8.  
☐ Yes. Provide the requested information below. Make additional copies of the next page, if necessary.

**For each outfall provide the following information:**

- A. Identify the outfall by number (e.g. 001, 002, etc.). Applicants with existing NPDES permits should refer to their current NPDES permit for outfall number identification; provide the name of the receiving water to which this outfall discharges.  
 B. Enter the street location and county in which the outfall is located.  
 C. Provide the location in State Planar Coordinates.  
 D. Describe the location using latitude and longitude (to the nearest 15 seconds).  
 E. Describe the type of discharge (pump station, bypass, CSO, etc.).  
 F. Describe the conditions that result in a discharge from the outfall (examples are power failures, wet weather events, etc.).  
 G. Approximate the number of days per year, hours per day, and gallons per hour the discharge occurs.

A.	Outfall Number	Receiving Water				
B.	County			Township		
C.	$\frac{1}{4}, \frac{1}{4}$	$\frac{1}{4}$	Section	Town	Range	
D.	Latitude (to nearest 15 seconds)			Longitude (to nearest 15 seconds)		
E.	Type of Discharge					
F.	Discharge Conditions					
G.	Discharge Frequency		Days/year	Hours/day	MGD	

A.	Outfall Number	Receiving Water				
B.	County			Township		
C.	$\frac{1}{4}, \frac{1}{4}$	$\frac{1}{4}$	Section	Town	Range	
D.	Latitude			Longitude		
E.	Type of Discharge					
F.	Discharge Conditions					
G.	Discharge Frequency		Days/year	Hours/day	MGD	

Michigan Department of Environmental Quality- Surface Water Quality Division  
**WASTEWATER DISCHARGE PERMIT APPLICATION**

**SECTION II - Sanitary Wastewater**

**C. Combined Sewer Overflow Information**

PLEASE TYPE OR PRINT

FACILITY NAME	NPDES PERMIT or COC NUMBER
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**BYPASSES AND COMBINED SEWER OVERFLOWS - Continued.**

Use this sheet to describe additional bypass or CSO outfalls . Make additional copies of this page if necessary.

A.	Outfall Number	Receiving Water				
B.	County			Township		
C.	$\frac{1}{4}, \frac{1}{4}$	$\frac{1}{4}$	Section	Town	Range	
D.	Latitude			Longitude		
E.	Type of Discharge					
F.	Discharge Conditions					
G.	Discharge Frequency		Days/year	Hours/day	MGD	

A.	Outfall Number	Receiving Water				
B.	County			Township		
C.	$\frac{1}{4}, \frac{1}{4}$	$\frac{1}{4}$	Section	Town	Range	
D.	Latitude			Longitude		
E.	Type of Discharge					
F.	Discharge Conditions					
G.	Discharge Frequency		Days/year	Hours/day	MGD	

A.	Outfall Number	Receiving Water				
B.	County			Township		
C.	$\frac{1}{4}, \frac{1}{4}$	$\frac{1}{4}$	Section	Town	Range	
D.	Latitude			Longitude		
E.	Type of Discharge					
F.	Discharge Conditions					
G.	Discharge Frequency		Days/year	Hours/day	MGD	

Michigan Department of Environmental Quality- Surface Water Quality Division  
**WASTEWATER DISCHARGE PERMIT APPLICATION**  
**SECTION II - Sanitary Wastewater**

**D. Industrial Pretreatment Program Information**

PLEASE TYPE OR PRINT

FACILITY NAME

City of Plainwell WWTP

NPDES PERMIT or COC NUMBER

MI 0020491

**7. INDUSTRIAL AND COMMERCIAL SOURCES**

A. Does this facility receive any nondomestic wastewater from any industrial or commercial facilities? (Nondomestic wastewater refers to water-carried wastes other than human and household wastes.)

☐ No, - Continue with Item 9.

☒ Yes, - Continue with B below.

B. Is an Industrial Pretreatment Program (IPP) currently required by the DEQ? If you are unsure if the facility is required to submit an IPP contact the appropriate district office (see pages 2 and 3 of the appendix).

☐ No, - Continue with Item 9.

☒ Yes, - Which program?

☒ Michigan Industrial Pretreatment Program?

☐ Federal Industrial Pretreatment Program? Submit a written technical evaluation with this application on the need to revise local limits.

The technical evaluation is a determination of whether the POTW's current local limits need to be revised. Changes to the local limits would be made only when the evaluation indicates it is necessary; or when otherwise required by applicable provisions of the NPDES permit. The technical evaluation also requires a determination of the Maximum Allowable Headworks Loading (MAHL) for the following:

- Pollutants that are subject to limits or monitoring requirements in the current permit.
- The following inorganic priority pollutants: Arsenic, Cadmium, Chromium, Copper, Cyanide, Lead, Mercury, Nickel, Silver and Zinc.
- All pollutants for which there are local limits contained in an approved IPP.
- All other pollutants of concern which would be reasonably expected to be discharged or transported by truck or rail or otherwise introduced to the POTW in quantities which could pass through, cause interference, or jeopardize health or safety.
- Any new pollutant proposed to be discharged or transported by truck or rail or otherwise introduced to the POTW prior to "acceptance".

**C. Provide the following information:**

1) Estimate the average volume of non-sanitary wastewater received by this facility: 50,000 gallons/day

2) Describe the type of nondomestic wastewater(s) received by this facility in the space provided below. Include industrial process wastewaters, contact cooling waters, noncontact cooling waters, Resource Conservation and Recovery Act (RCRA) or Comprehensive Environmental Response and Liability Act (CERCLA) wastes received, or other wastes received from remediation or clean-up efforts. If additional space is necessary, provide the information as an attachment to this application on 8 1/2" x 11" paper.

20,000 gpd from one permitted industrial user. The rest of my estimate is commercial or light industrial use. No other examples of above uses are applicable to this facility. 10,000 gpd is from Plainwell Paper Inc. which is sanitary only, as they have their own treatment plant.

3) Describe what is known about the quality of the nondomestic wastewater in the space provided below (include sampling results if available). This information may also be provided as an attachment to this application on 8 1/2" x 11" paper.

See Attached analysis from last years IPP program. As of 1-21-00 Lawrence Ind. is not on our sewer system. They disconnected service.



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 SECTION II - Sanitary Wastewater

E. Biosolids Information

PLEASE TYPE OR PRINT

FACILITY NAME <u>City of Plainwell WWTP</u>	NPDES PERMIT NUMBER <u>MI 0820491</u>
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8. RESIDUALS HANDLING

Provide total English dry tons per 365-day period of biosolids handled under the following practices:

Amount generated at the facility: <u>199.95</u>	Amount applied to land in bulk form: <u>199.95</u>
Amount received from off site: <u>0</u>	Amount fired in biosolids incinerator: <u>0</u>
Amount treated on site (including blending): <u>199.95</u> (ANEROBIC DIGESTION)	Amount sent to municipal solid waste landfill: <u>0</u>
Amount of bulk biosolids shipped off site for treatment or for sale/give-away in a bag or other container for application to the land: <u>0</u>	Amount sold or given away in a bag or other container for application to the land: <u>0</u>
Amount used or disposed by another practice: <u>0</u>	Describe: _____

9. RESIDUALS STORAGE

Enter the volume of residual storage capacity at this facility. 0.5 ☒ million gallons or ☐ cubic feet

10. BIOSOLIDS CHARACTERISTICS

Report one year biosolids monitoring data, and in no case less than three sampling events for the following Part 24 Rules required parameters. Provide the actual analytical data sheets as an attachment. All sampling shall be representative of the biosolids being proposed to be applied to the land. Analytical methods shall be in accordance with R 323.2406 (2) Methods for Biosolids. See Appendix C. Data that is available for parameters not specifically listed on this page shall be provided on the adjoining page.

Parameter	Average Monthly Concentration	Maximum Concentration	Units	Number of Analyses	Sample Type	Analytical Method	Method Detection Level
Total Solids	3.87	5.62	%	7	<input checked="" type="checkbox"/> Grab <input type="checkbox"/> Composite	160.3	.010
Total Arsenic	4.50	7.50	Mg/kg	7	<input checked="" type="checkbox"/> Grab <input type="checkbox"/> Composite	7000 series	.005
Total Cadmium	6.1	8.6	Mg/kg	7	<input checked="" type="checkbox"/> Grab <input type="checkbox"/> Composite	6010 A	.020
Total Copper	925.14	1910.00	Mg/kg	7	<input checked="" type="checkbox"/> Grab <input type="checkbox"/> Composite	6010 A	.020
Total Lead	74.36	157	Mg/kg	7	<input checked="" type="checkbox"/> Grab <input type="checkbox"/> Composite	6010A	.150
Total Mercury	3.7	17	Mg/kg	7	<input checked="" type="checkbox"/> Grab <input type="checkbox"/> Composite	7470	.020
Total Molybdenum	8.1	10	Mg/kg	7	<input checked="" type="checkbox"/> Grab <input type="checkbox"/> Composite	6010A	.100
Total Nickel	76.14	153	Mg/kg	7	<input checked="" type="checkbox"/> Grab <input type="checkbox"/> Composite	6010A	.100
Total Selenium	2.6	5.0	Mg/kg	7	<input checked="" type="checkbox"/> Grab <input type="checkbox"/> Composite	7000 series	.005
Total Zinc	1397	2880	Mg/kg	7	<input checked="" type="checkbox"/> Grab <input type="checkbox"/> Composite	6010A	.010
Total Kjeldahl Nitrogen	62700	150,000	mg/L	7	<input checked="" type="checkbox"/> Grab <input type="checkbox"/> Composite	351.4	.10
Ammonium Nitrogen	18814	38000	mg/kg	7	<input checked="" type="checkbox"/> Grab <input type="checkbox"/> Composite	350.3	1.0
Total Phosphorus	38900	52700	mg/kg	7	<input checked="" type="checkbox"/> Grab <input type="checkbox"/> Composite	365.3	5.0
Total Potassium	2132	4850	mg/kg	7	<input checked="" type="checkbox"/> Grab <input type="checkbox"/> Composite	6010A	5.0

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**E. Biosolids Information**

PLEASE TYPE OR PRINT

FACILITY NAME <i>City of Plainwell WWTP</i>	NPDES PERMIT NUMBER <i>MI 0020 491</i>
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**11. POLLUTANTS OF CONCERN**

Is there currently or is there potential for pollutants (other than parameters listed on the previous page) to be present in the biosolids at concentrations that would make them unsuitable for land application?

☐ Yes - Describe the circumstances below and provide representative analytical data for those Pollutants of Concern in Item 3.

☒ No - Continue with Item 12.

**12. ADDITIONAL BIOSOLIDS MONITORING DATA**

Report any biosolids monitoring data from the last permit cycle for parameters not specifically listed on the previous page. Include the actual analytical data sheets as an attachment. Upon submittal review, additional monitoring may be required if SWQD has reason(s) to suspect that the information provided (or not provided) does not adequately characterize the residuals proposed to be land applied. For assistance on completing this section or determining the necessity for completing this section, you may contact the appropriate DEQ Surface Water Quality Division (SWQD) Office (see pages 2 and 3 of the Appendix).

Parameter	Average Monthly Concentration	Maximum Concentration	Units	Number of Analyses	Sample Type	Analytical Method	Method Detection Level
Nitrogen, Total Avail.	20.12	86.4	lb/Ton	3	<input checked="" type="checkbox"/> Grab <input type="checkbox"/> Composite	CALC.	.100
Chloride	9064	24200	mg/Kg	7	<input checked="" type="checkbox"/> Grab <input type="checkbox"/> Composite	9056	1.0
Nitrogen Nitrate	33.5	80	mg/Kg	7	<input checked="" type="checkbox"/> Grab <input type="checkbox"/> Composite	9056	1.0
Sulfate	5540	16000	mg/Kg	7	<input checked="" type="checkbox"/> Grab <input type="checkbox"/> Composite	9056	1.0
Barium	1094	2430	mg/Kg	7	<input checked="" type="checkbox"/> Grab <input type="checkbox"/> Composite	6010A	.010
Calcium	50100	97800	mg/Kg	7	<input checked="" type="checkbox"/> Grab <input type="checkbox"/> Composite	6010A	.020
Chromium	158	280	mg/Kg	7	<input checked="" type="checkbox"/> Grab <input type="checkbox"/> Composite	6010A	.040
Magnesium	6184	13200	mg/Kg	7	<input checked="" type="checkbox"/> Grab <input type="checkbox"/> Composite	6010A	.050
Silver	78	138	mg/Kg	7	<input checked="" type="checkbox"/> Grab <input type="checkbox"/> Composite	6010A	.030
Sodium	5380	12200	mg/Kg	7	<input checked="" type="checkbox"/> Grab <input type="checkbox"/> Composite	6010A	.100
Nitrogen Total	62557	149000	mg/Kg	7	<input checked="" type="checkbox"/> Grab <input type="checkbox"/> Composite	CALC.	1.0
					<input type="checkbox"/> Grab <input type="checkbox"/> Composite		
					<input type="checkbox"/> Grab <input type="checkbox"/> Composite		
					<input type="checkbox"/> Grab <input type="checkbox"/> Composite		
					<input type="checkbox"/> Grab <input type="checkbox"/> Composite		
					<input type="checkbox"/> Grab <input type="checkbox"/> Composite		

Michigan Department of Environmental Quality- Surface Water Quality Division  
**WASTEWATER DISCHARGE PERMIT APPLICATION**  
 SECTION II - Sanitary Wastewater

E. Biosolids Information

PLEASE TYPE OR PRINT

FACILITY NAME <b>City of Plainwell WWTP</b>	NPDES PERMIT NUMBER <b>MI0020491</b>
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13. Land Application Site List

Provide the following information for every new or existing site that you intend to use in the next five years (biosolids permit cycle). Each listed site should either have had a Site Identification Form with attachments submitted to the MDEQ since January 1, 1998, or that information should be included with this form. Additional sites may be added to the Land Application Site List during the biosolids permit cycle by submitting a completed Site Identification Form with the appropriate attachments and waiting the required ten day notification period. Use additional pages as necessary.

MDEQ # Site Identification Number	Latitude (dd,mm,ss)	Longitude (dd,mm,ss)	Acres	Owners Last Name	New Site? (check if yes)	CPLR* Site? (check if yes)
01N13W35P01	42:25:424	85:48:935	35	Jasinski's	<input type="checkbox"/>	<input type="checkbox"/>
01N13W34P01	42:25:049	85:48:385	15	Jasinski's	<input type="checkbox"/>	<input type="checkbox"/>
01N13W35JSD1	42:25:424	85:48:946	40	Sinkler	<input type="checkbox"/>	<input type="checkbox"/>
01N11W16G601	42:27:900	85:36:734	23	Langford	<input type="checkbox"/>	<input type="checkbox"/>
01S11W30KCO1	*	*	52	Cool	<input type="checkbox"/>	<input type="checkbox"/>
01N11W23GDD1	*	*	17	Doster	<input type="checkbox"/>	<input type="checkbox"/>
01N11W23GDD2	*	*	24.6	Doster	<input type="checkbox"/>	<input type="checkbox"/>
02N11W28PH01	*	*	20	Hazen	<input type="checkbox"/>	<input type="checkbox"/>
02N11W33PH01	*	*	70	Hazen	<input type="checkbox"/>	<input type="checkbox"/>
01S11W28KCO2	*	*	34	Cool	<input type="checkbox"/>	<input type="checkbox"/>
01S11W30KCO4	*	*	37	Cool	<input type="checkbox"/>	<input type="checkbox"/>
01S11W30KCO6	*	*	26	Cool	<input type="checkbox"/>	<input type="checkbox"/>
01N10W03GDD1	*	*	8	Doster	<input type="checkbox"/>	<input type="checkbox"/>
02N10W32GDD1	*	*	12	Doster	<input type="checkbox"/>	<input type="checkbox"/>
01N10W03GDD2	*	*	12	Doster	<input type="checkbox"/>	<input type="checkbox"/>
01S11W11DKO1	*	*	30	Klein	<input type="checkbox"/>	<input type="checkbox"/>
01S11W21DKO1	*	*	20	Klein	<input type="checkbox"/>	<input type="checkbox"/>
02N11W22RR06	*	*	20	Roobol	<input type="checkbox"/>	<input type="checkbox"/>
(*) Attachment # 13 verifies list.					<input type="checkbox"/>	<input type="checkbox"/>
* No information Available for these sites at this					<input type="checkbox"/>	<input type="checkbox"/>
time as Synagro is developing these locations.					<input type="checkbox"/>	<input type="checkbox"/>

\* see definitions

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**SECTION II - Sanitary Wastewater**

**F. Signature Page**

PLEASE TYPE OR PRINT

FACILITY NAME <u>City of Plainwell WWTP</u>	NPDES PERMIT or COC NUMBER <u>MI 0020491</u>
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14. CERTIFICATION

Rule 323.2114(1-4) of the Part 21 Rules of Michigan Act 451, Public Act of 1994, Part 31, as amended, requires that this application be signed as follows:

- A. For a municipal, state, or other public facility, by a principal executive officer or ranking elected official (such as the mayor, village president, city or village manager or clerk).
- B. For an organization, company, corporation or authority, by a principal executive officer.
- C. For a partnership, by a general partner.
- D. For a sole proprietor, by the proprietor.

*"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."*

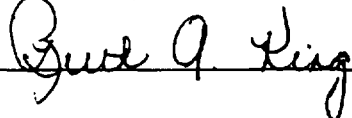
Print Name	<u>Bryan D. Pond</u>	Title	<u>Superintendent, WWTP</u>
Representing	<u>City of Plainwell Wastewater Treatment Plant</u>		
Signature		Date	<u>3-31-2000</u>

If the application is for a privately owned treatment system serving a mobile home park, campground, apartment complex, condominium, nursing home, prison, or other facility for treatment of domestic wastewater from two or more residences, a principal executive officer or a ranking elected official from the local unit of government shall sign the permit application in the space provided. The signature is only a certification that the local unit of government is aware of its responsibilities as set forth in Section 3109(2) of Michigan Act 451, P.A. of 1994, as amended. The refusal of the local unit of government to sign the application does not reduce its liability under the statute.

*"This is to certify that I am aware of and recognize the responsibilities of the municipality as set forth in Section 3109(2) of Michigan Act 451 of 1994, as amended."*

Print Name	<u>Ruth A. King</u>	Title	<u>City Administrator</u>
Representing	<u>City of Plainwell</u>		
Signature		Date	<u>3-31-2000</u>

**This completes Section II. Section II must be completed for all applicants requesting authorization to; discharge sanitary wastewater(s) to a surface water of the State or; to land apply biosolids in the state. When Section I and II are complete, please return application to the appropriate district office (see pages 2 and 3 of the appendix for district office addresses and a map of district boundaries).**

**If assistance is needed in determining the appropriate sections to complete, or if assistance is needed completing this application, contact the appropriate district office.**

## CITY OF PLAINWELL

### WASTEWATER TREATMENT PLANT

#### Plant Data Sheet

#### HISTORY

During the mid 1950's, Plainwell constructed a wastewater treatment plant with a trickling filter as the secondary treatment. Prior to this, raw sewage was discharged to the Kalamazoo River. During the 1970's, the area was growing and regulatory constraints were becoming an issue at the plant.

With help of an EPA grant it was time to expand the treatment plant. The project cost \$3 million and was completed in the early 1980's.

The improvements gave the plant a 1.3 million gallon per day capacity. Our current flow is 500,000 gallons per day. The new improvements included installation of two new 30' screw pumps, conversion of the old primary & secondary tanks to just primary clarifiers, removal of the undersized trickling filter from service, and installation of new Rotating Biological Contractors (RBCs). A new sludge heat exchanger, a new secondary pump room, two new final clarifiers, and a new chlorine contact chamber were also added. As expanded, the Superintendent in charge of the new plant was required to have a class B State of Michigan wastewater treatment license.

In 1992, the City built a 500,000 gallon tank for additional bio solids storage.

In 1998, the City invested \$500,000 to renovate some of the equipment from the 1980 project. This included improved primary clarifier flow distribution, new primary clarifier hardware, and a new "channel monster" for preliminary treatment. Major renovations to the digester building piping, and a new chopper pump for improved digester mixing. Two new secondary clarifier pumps and piping, and a new raw sludge pump and piping.

#### COLLECTION SYSTEM

Sewer mains collect the wastewater from homes, businesses, and industries. With the help of interceptors and pumping stations, this wastewater is conveyed to the treatment plant.

The City of Plainwell has over 15 miles of sewer lines in its system, and 7 pumping stations. The service area extends into Otsego Township (which has 2 pump stations), the Village of Martin (which has 3 pump stations), and Gun Plain Township (which has 24 pump stations).

## PRELIMINARY TREATMENT

In preliminary treatment, the pollutants that would be harmful to mechanical equipment are removed or reduced to a manageable size. Large objects such as rags, sticks, as well as abrasive grit, are examples of the materials handled in this step.

The Plainwell Wastewater Treatment Plant uses three different procedures in this treatment step. The flow coming into the plant can be split between two channels. The first channel contains a bar screen, which consists of bars spaced approximately 1 inch apart, that catches large objects to be manually removed on a daily basis. The second channel contains a "channel monster" which has two rotating grinders, which shears the material. The material that flows through this channel is now in smaller pieces and continues into the plant for treatment.

The flow from these channels proceeds into an aerated grit tank. Here the abrasive grit is removed from the wastestream. Air is injected to the tank at a rate that keeps the lighter organic matter in suspension, but allows the heavier inorganic matter to settle. The settled matter (grit) is piped to a separator that removes the grit and returns the liquid back to the incoming flow. The sewage that leaves the aerated grit tank is sent to the next stage, which is Primary Treatment.

## PRIMARY TREATMENT

In Primary Treatment, the organic matter that floats or settles to the bottom of the clarifiers is removed.

Plainwell's plant has 5 primary clarifiers. Each clarifier holds 15,300 gallons of water. The flow is normally split between all 5 clarifiers. At current flows, we have a 3.3 hour detention time in this portion of the plant. The floating matter is skimmed off and sent to landfill for disposal. The settled matter is collected by scrapers on the bottom of the tanks and is pumped to the digesters for additional treatment. The water that flows out of the primary clarifiers is sent to the next stage of treatment called Secondary Treatment.

## SECONDARY TREATMENT

Dissolved or finely divided pollutants are removed in the Secondary Treatment facilities. These units provide the proper environment for the biological breakdown of the organic materials.

Plainwell uses Rotating Biological Contactors (RBC's) to perform this treatment. These consist of 6 - 25 foot long shafts with plastic media attached to the shaft. The outside dimension of the cylindrical plastic media is 10 feet. There are 2 rows containing 3 shafts. Each row contains 396,000 square feet of surface area on the media. Organisms grow on the media, which uses the wastewater as a food source and performs the biological breakdown of the sewage. This is commonly known as an attached growth process.

The flow can be split between the 2 rows or directed to 1 of the 2 rows. The discharge from the RBC's then flows to 2 secondary clarifiers. Each clarifier holds 110,000 gallons of water. The secondary clarifiers again remove those materials that float to the surface or settle to the bottom of the tank. The settled material as well as the material that floats are pumped back to the incoming flow stream for additional treatment. At current flows, we have approximately a 12 hour detention time in this portion of the plant. The flow that leaves the Secondary Treatment state is disinfected prior to discharge to the Kalamazoo River.

## PHOSPHORUS REMOVAL

Phosphorus has been identified as one of the substances, which disrupts the ecological balance of our waters. Both chemical additions and biological treatment reduce the amount of phosphorus in the effluent of the treatment. The discharge limit set for the City of Plainwell is 1.0 mg/l., which means that it must be less than one milligram per liter of water leaving the plant.

Ferric chloride and polymer are used at the plant and are pumped in by metering pumps in various places in the treatment process to achieve phosphorus removal. The soluble phosphorus is removed by the ferric chloride and the polymer removes the insoluble phosphorus. This is done by flocculation of the solids in the water. The ferric chloride and polymer bind or coagulate the solids and settle them out in the primary clarifiers. Most of the phosphorus is removed along with the solids. The remaining phosphorus is removed by secondary or biological treatment.

## DISINFECTION

Disinfection is the destruction of disease-causing bacteria and viruses prior to discharging the treated water to the Kalamazoo River.

Plainwell has two chlorine contact tanks where chlorine is applied. The wastewater has a detention time in the tank of just over 1-½ hours. The tank is baffled to allow a complete mix of treated wastewater with the chlorine solution. A separate chlorinator capable of feeding 50 pounds per day of chlorine is used to feed the chlorine to each tank. Normal application rate is 7-10 pounds per day total.

To reduce the toxicity that chlorine may have on some of the organisms in the river when the treated wastewater is discharged, the flow is dechlorinated before being released to the river. Sulfur dioxide is applied at a rate that reduces the chlorine in the discharge to less than 0.0365 parts per million parts of chlorine. A separate sulfonator capable of feeding 10 pounds per day of sulfur dioxide feeds the sulfur dioxide to each tank. Because the reaction is immediate, the sulfur dioxide is applied at a point just prior to the discharge of the tank. From the chlorine contact tank the treated wastewater is discharged into the Kalamazoo River.

## BIO SOLIDS TREATMENT

In the sludge facilities, the solids that settled in the previous steps are prepared for final disposal. The solids are stabilized to kill disease-causing microorganisms and to prevent the development of odors.

As the present time, Plainwell has two digesters and two holding tanks. Each digester holds 110,000 gallons of sludge. The small holding tank holds 75,000 gallons and the large holding tank holds 500,000 gallons, bringing the total capacity up to 795,000 gallons of sludge.

The primary digester is heated to 95 degrees Fahrenheit and circulated to enhance the digestion process. The methane gas produced by this breakdown is collected in the cover of the tank and used to mix the heat and the sludge. By doing this, we reduce the plant's natural gas costs by 50%. We currently feed 4,200 gallons of sludge on a daily basis. To maintain space in the primary digester, sludge is transferred to the secondary digester and finally to the storage tanks. Here the sludge is allowed to settle. The clearer liquid, which remains on the surface, is called supernatant. This is returned to the head of the plant to be treated with the wastewater entering the plant.

## BIO SOLIDS DISPOSAL

The treated sludge must be disposed of in a safe environmentally sound manner.

The City of Plainwell applies liquid sludge directly to farmland for its fertilizer value. The sludge contains phosphorus, nitrogen, and potassium as well as other nutrients that crops need for growth. An independent contractor has been hired by the City to handle this job. They test the sludge and the soil to determine appropriate application rates. They then obtain approval by the MDEQ for safe application of the sludge. We currently apply sludge once per year at a quantity of approximately 500,000 gallons.

## LABORATORY ANALYSES

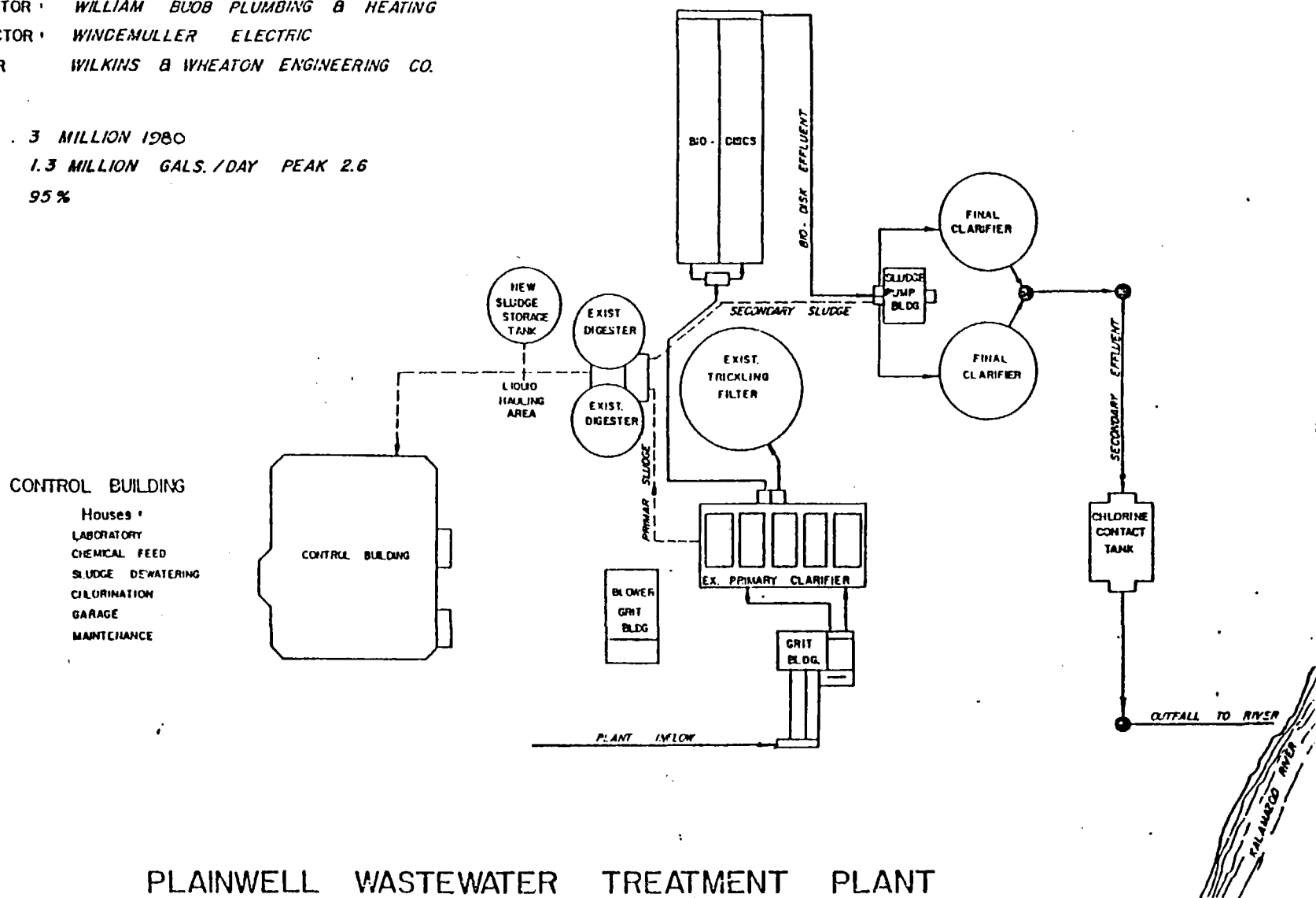
The plant laboratory is essential in monitoring wastewater characteristics and providing process control information. The wastewater is sampled at 3 points in the treatment process. This is done so that we can monitor and evaluate the treatment process.

Tests performed daily by plant staff at Plainwell include the following: suspended solids, biochemical oxygen demand, pH, dissolved oxygen, phosphorus, ammonia nitrogen, and fecal coliform bacteria tests. These tests tell us what effect the treatment is having on the treated wastewater. The MDEQ and U.S. EPA place limits on what can be discharged and this testing also proves compliance with the required limits.



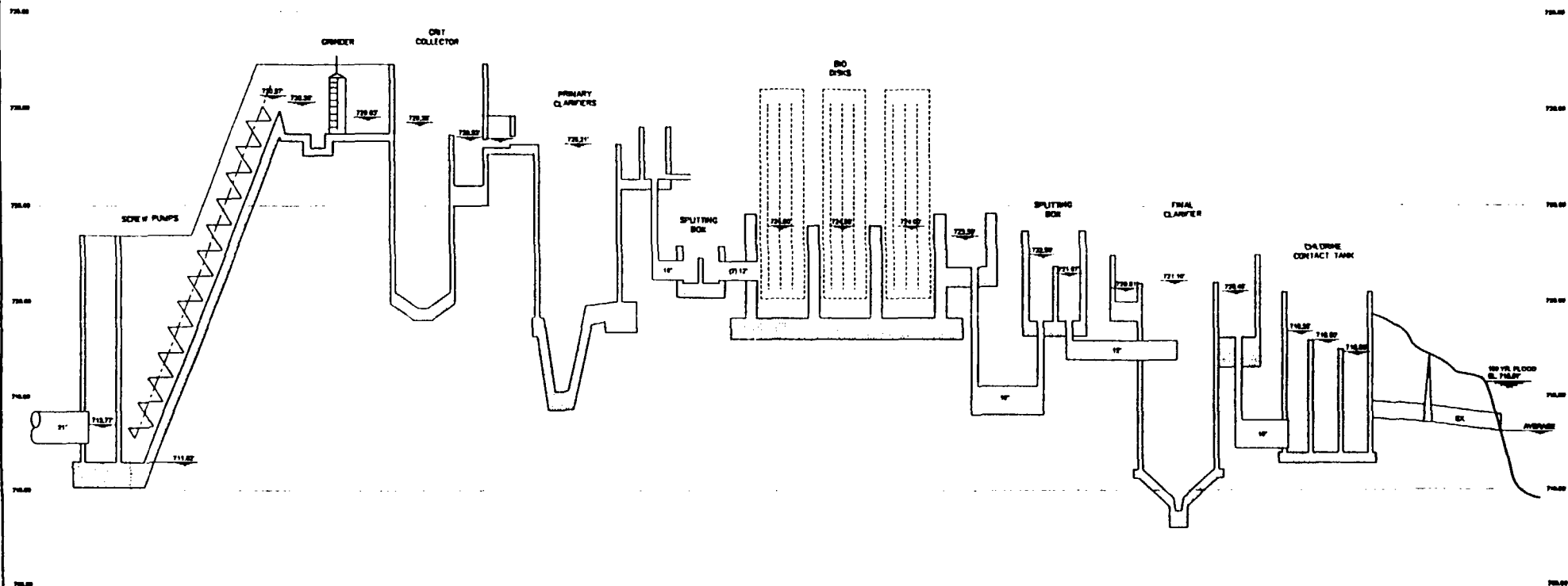
GENERAL CONTRACTOR : TRIANGLE ASSOCIATES, INC  
 MECHANICAL CONTRACTOR : WILLIAM BUOB PLUMBING & HEATING  
 ELECTRICAL CONTRACTOR : WINDEMULLER ELECTRIC  
 CONSULTING ENGINEER : WILKINS & WHEATON ENGINEERING CO.

PROJECT COST : 3 MILLION 1980  
 DESIGN FLOW : 1.3 MILLION GALS./DAY PEAK 2.6  
 EXPECTED REMOVAL : 95%



PLAINWELL WASTEWATER TREATMENT PLANT





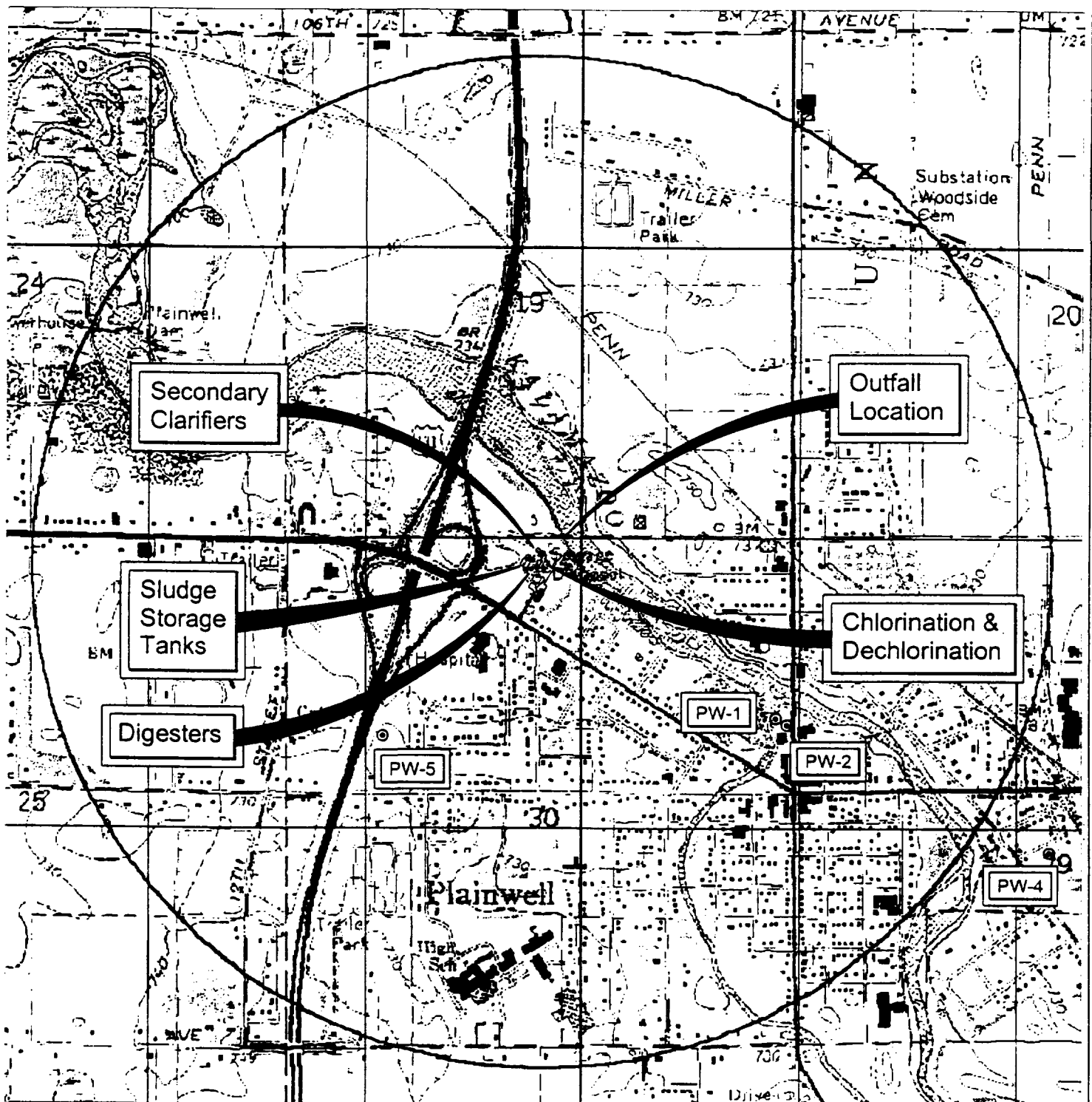
# WASTEWATER TREATMENT PLANT HYDRAULIC PROFILE

## CITY OF PLAINWELL

ALLEGAN COUNTY, MICHIGAN

## Map of Facility and Discharge Location

Scale: 1:1500



City of Plainwell

Allegan County, Michigan

Attachment #5  
Section II (B)

**KAR** Laboratories, Inc.

**City of Plainwell WWTP**  
**129 Fairlane Street**  
**Plainwell, MI 49080-1272**

**KAR Project No. : 001196**  
**Date Reported : 03/29/00**  
**Date Activated : 03/14/00**  
**Date Due : 03/30/00**  
**Date Validated : 03/29/00**

**Attn : Mr. Bryan D. Pond**

**Project**

**Description : Sampling and analysis of one Effluent site for three consecutive days.**

4425 Manchester Road

Kalamazoo, MI 49001

Phone 616 381-9666

Fax 616 381-9698

www.karlabs.com

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 001196. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,



Michael J. Jaeger  
Director of Laboratories

KAR Laboratories, Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of City of Plainwell WWTP

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient) then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

**LABORATORY DETAIL REPORT****KAR Project No. : 001196****Client: City of Plainwell WWTP****Date Reported : 03/29/00****Project****Description : Sampling and analysis of one Effluent site for three consecutive days.****Sample ID : "24 Hr. Composite, 3/14-15/00, 8:30am-8:38am"****Sampled By : SNH of KAR Laboratories****Date Received : 03/15/2000****Sample Date : 03/15/2000****Sample Type : aqueous****Sample Time :****KAR Sample No. : 001196-02**

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep. Hg	Completed		EPA 245.2	03/16/2000	PML	
Prep. metals	Completed		EPA 30xx.200.x	03/16/2000	DBL	
Antimony, total, low level	<0.002	mg/L	EPA 200.8	03/20/2000	DBL	
Arsenic, total, low level	<0.001	mg/L	EPA 200.8	03/20/2000	DBL	
Beryllium, total, low level	<0.001	mg/L	EPA 200.8	03/20/2000	DBL	
Cadmium, total, low level	<0.0002	mg/L	EPA 200.8	03/20/2000	DBL	
Chromium, total, low level	0.003	mg/L	EPA 200.8	03/20/2000	DBL	
Copper, total, low level	0.008	mg/L	EPA 200.8	03/20/2000	DBL	
Lead, total, low level	<0.001	mg/L	EPA 200.8	03/20/2000	DBL	
Mercury, total, low level	<0.0002	mg/L	EPA 245.2	03/17/2000	PML	
Nickel, total, low level	0.004	mg/L	EPA 200.8	03/20/2000	DBL	
Selenium, total, low level	<0.002	mg/L	EPA 270.2	03/24/2000	PML	
Silver, total, low level	0.0030	mg/L	EPA 200.8	03/20/2000	DBL	
Thallium, total, low level	<0.002	mg/L	EPA 200.8	03/20/2000	DBL	
Zinc, total, low level	0.025	mg/L	EPA 200.8	03/20/2000	DBL	
Hardness	308	mg/L (as CaCO3)	SM(18) 2340 B	03/23/2000	ALK	
Phenols, total	<0.02	mg/L	EPA 420.1	03/27/2000	MCB	
Prior. Poll. acids	See below		EPA 8270	03/23/2000	KTL	
Prior. Poll. base-neutrals	See below		EPA 8270	03/23/2000	KTL	
Prep. SV Acid/BN	Completed		EPA 3510	03/16/2000	MJY	
1,2,4-Trichlorobenzene 8270	<5	ug/L	EPA 8270	03/23/2000	KTL	
1,2-Dichlorobenzene by 8270	<5	ug/L	EPA 8270	03/23/2000	KTL	
1,2-Diphenylhydrazine	<5	ug/L	EPA 8270	03/23/2000	KTL	
1,3-Dichlorobenzene by 8270	<5	ug/L	EPA 8270	03/23/2000	KTL	
1,4-Dichlorobenzene by 8270	<5	ug/L	EPA 8270	03/23/2000	KTL	
2,3,7,8-TCDD by 8270	<5	ug/L	EPA 8270	03/23/2000	KTL	
2,4,6-Trichlorophenol	<5	ug/L	EPA 8270	03/23/2000	KTL	
2,4-Dichlorophenol	<5	ug/L	EPA 8270	03/23/2000	KTL	
2,4-Dimethylphenol	<5	ug/L	EPA 8270	03/23/2000	KTL	
2,4-Dinitrophenol	<20	ug/L	EPA 8270	03/23/2000	KTL	
2,4-Dinitrotoluene	<5	ug/L	EPA 8270	03/23/2000	KTL	
2,6-Dinitrotoluene	<5	ug/L	EPA 8270	03/23/2000	KTL	
2-Chloronaphthalene	<5	ug/L	EPA 8270	03/23/2000	KTL	
2-Chlorophenol	<5	ug/L	EPA 8270	03/23/2000	KTL	
2-Methyl-4,6-dinitrophenol	<20	ug/L	EPA 8270	03/23/2000	KTL	
2-Nitrophenol	<5	ug/L	EPA 8270	03/23/2000	KTL	
3,3'-Dichlorobenzidine	<20	ug/L	EPA 8270	03/23/2000	KTL	
4-Bromophenyl phenyl ether	<5	ug/L	EPA 8270	03/23/2000	KTL	
4-Chloro-3-methylphenol	<5	ug/L	EPA 8270	03/23/2000	KTL	

**KAR Laboratories, Inc.**

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**LABORATORY DETAIL REPORT**Client: *City of Plainwell WWTP*KAR Project No. : **001196**Date Reported : **03/29/00****Project**Description : *Sampling and analysis of one Effluent site for three consecutive days.*Sample ID : **"24 Hr. Composite, 3/14-15/00, 8:30am-8:38am"**Sampled By : *SNH of KAR Laboratories*Date Received : **03/15/2000**Sample Date : **03/15/2000**Sample Type : **aqueous**

Sample Time :

KAR Sample No. : **001196-02**

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
4-Chlorophenyl phenyl ether	<5	ug/L	EPA 8270	03/23/2000	KTL	
4-Nitrophenol	<20	ug/L	EPA 8270	03/23/2000	KTL	
Acenaphthene	<5	ug/L	EPA 8270	03/23/2000	KTL	
Acenaphthylene	<5	ug/L	EPA 8270	03/23/2000	KTL	
Anthracene	<5	ug/L	EPA 8270	03/23/2000	KTL	
Benzidine	<50	ug/L	EPA 8270	03/23/2000	KTL	
Benzo(a)anthracene	<5	ug/L	EPA 8270	03/23/2000	KTL	
Benzo(a)pyrene	<5	ug/L	EPA 8270	03/23/2000	KTL	
Benzo(b)fluoranthene	<5	ug/L	EPA 8270	03/23/2000	KTL	
Benzo(g,h,i)perylene	<5	ug/L	EPA 8270	03/23/2000	KTL	
Benzo(k)fluoranthene	<5	ug/L	EPA 8270	03/23/2000	KTL	
Bis(2-chloroethoxy)methane	<5	ug/L	EPA 8270	03/23/2000	KTL	
Bis(2-chloroethyl)ether	<5	ug/L	EPA 8270	03/23/2000	KTL	
Bis(2-chloroisopropyl)ether	<5	ug/L	EPA 8270	03/23/2000	KTL	
Bis(2-ethylhexyl)phthalate	7	ug/L	EPA 8270	03/23/2000	KTL	
Butylbenzyl phthalate	<5	ug/L	EPA 8270	03/23/2000	KTL	
Chrysene	<5	ug/L	EPA 8270	03/23/2000	KTL	
Di-N-butylphthalate	<5	ug/L	EPA 8270	03/23/2000	KTL	
Di-n-Octyl phthalate	<5	ug/L	EPA 8270	03/23/2000	KTL	
Dibenz(a,h)anthracene	<5	ug/L	EPA 8270	03/23/2000	KTL	
Diethyl phthalate	<5	ug/L	EPA 8270	03/23/2000	KTL	
Dimethyl phthalate	<5	ug/L	EPA 8270	03/23/2000	KTL	
Fluoranthene	<5	ug/L	EPA 8270	03/23/2000	KTL	
Fluorene	<5	ug/L	EPA 8270	03/23/2000	KTL	
Hexachlorobenzene	<5	ug/L	EPA 8270	03/23/2000	KTL	
Hexachlorobutadiene	<5	ug/L	EPA 8270	03/23/2000	KTL	
Hexachlorocyclopentadiene	<5	ug/L	EPA 8270	03/23/2000	KTL	
Hexachloroethane	<5	ug/L	EPA 8270	03/23/2000	KTL	
Indeno(1,2,3-cd)pyrene	<5	ug/L	EPA 8270	03/23/2000	KTL	
Isophorone	<5	ug/L	EPA 8270	03/23/2000	KTL	
N-Nitrosodi-n-propylamine	<5	ug/L	EPA 8270	03/23/2000	KTL	
N-Nitrosodimethylamine	<5	ug/L	EPA 8270	03/23/2000	KTL	
N-Nitrosodiphenylamine	<5	ug/L	EPA 8270	03/23/2000	KTL	
Naphthalene by Method 8270	<5	ug/L	EPA 8270	03/23/2000	KTL	
Nitrobenzene	<5	ug/L	EPA 8270	03/23/2000	KTL	
Pentachlorophenol	<5	ug/L	EPA 8270	03/23/2000	KTL	
Phenanthrene	<5	ug/L	EPA 8270	03/23/2000	KTL	
Phenol	<5	ug/L	EPA 8270	03/23/2000	KTL	
Pyrene	<5	ug/L	EPA 8270	03/23/2000	KTL	

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**LABORATORY DETAIL REPORT**KAR Project No. : **001196**Client: **City of Plainwell WWTP**Date Reported : **03/29/00****Project****Description : Sampling and analysis of one Effluent site for three consecutive days.**Sample ID : **"Grab, 3/14/00"**Sampled By : **SNH of KAR Laboratories**Date Received : **03/14/2000**Sample Date : **03/14/2000**Sample Type : **aqueous**Sample Time : **8:30am**KAR Sample No. : **001196-04**

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Cyanide, total	<0.005	mg/L	EPA 335.2	03/22/2000	MCB	
Prior Poll. volatiles	See below		EPA 624	03/15/2000	JAR	
Prep. VOA	Completed		EPA 624	03/15/2000	JAR	
1,1,1-Trichloroethane	<1	ug/L	EPA 624	03/15/2000	JAR	
1,1,2,2-Tetrachloroethane	<1	ug/L	EPA 624	03/15/2000	JAR	
1,1,2-Trichloroethane	<1	ug/L	EPA 624	03/15/2000	JAR	
1,1-Dichloroethane	<1	ug/L	EPA 624	03/15/2000	JAR	
1,1-Dichloroethene	<1	ug/L	EPA 624	03/15/2000	JAR	
1,2-Dichlorobenzene	<1	ug/L	EPA 624	03/15/2000	JAR	
1,2-Dichloroethane	<1	ug/L	EPA 624	03/15/2000	JAR	
1,2-Dichloropropane	<1	ug/L	EPA 624	03/15/2000	JAR	
1,3-Dichlorobenzene	<1	ug/L	EPA 624	03/15/2000	JAR	
1,4-Dichlorobenzene	<1	ug/L	EPA 624	03/15/2000	JAR	
2-Chloroethylvinyl ether	<1	ug/L	EPA 624	03/15/2000	JAR	
Acrolein	<5	ug/L	EPA 624	03/15/2000	JAR	
Acrylonitrile	<1	ug/L	EPA 624	03/15/2000	JAR	
Benzene	<1	ug/L	EPA 624	03/15/2000	JAR	
Bromodichloromethane	<1	ug/L	EPA 624	03/15/2000	JAR	
Bromoform	<1	ug/L	EPA 624	03/15/2000	JAR	
Bromomethane	<1	ug/L	EPA 624	03/15/2000	JAR	
Carbon tetrachloride	<1	ug/L	EPA 624	03/15/2000	JAR	
Chlorobenzene	<1	ug/L	EPA 624	03/15/2000	JAR	
Chloroethane	<1	ug/L	EPA 624	03/15/2000	JAR	
Chloroform	<1	ug/L	EPA 624	03/15/2000	JAR	
Chloromethane	<1	ug/L	EPA 624	03/15/2000	JAR	
Cis-1,3-Dichloropropene	<1	ug/L	EPA 624	03/15/2000	JAR	
Dibromochloromethane	<1	ug/L	EPA 624	03/15/2000	JAR	
Ethylbenzene	<1	ug/L	EPA 624	03/15/2000	JAR	
Methylene chloride	<1	ug/L	EPA 624	03/15/2000	JAR	
Tetrachloroethene	<1	ug/L	EPA 624	03/15/2000	JAR	
Toluene	1.9	ug/L	EPA 624	03/15/2000	JAR	
Trans-1,2-Dichloroethene	<1	ug/L	EPA 624	03/15/2000	JAR	
Trans-1,3-Dichloropropene	<1	ug/L	EPA 624	03/15/2000	JAR	
Trichloroethene	<1	ug/L	EPA 624	03/15/2000	JAR	
Trichlorofluoromethane	<1	ug/L	EPA 624	03/15/2000	JAR	
Vinyl chloride	<1	ug/L	EPA 624	03/15/2000	JAR	

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**LABORATORY DETAIL REPORT**Client: *City of Plainwell WWTP*KAR Project No. : **001196**Date Reported : **03/29/00****Project**Description : *Sampling and analysis of one Effluent site for three consecutive days.*Sample ID : **"24 Hr. Composite, 3/15-16/00, 8:38am-8:35am"**Sampled By : *SNH of KAR Laboratories*Date Received : **03/16/2000**Sample Date : **03/16/2000**Sample Type : **aqueous**

Sample Time :

KAR Sample No. : **001196-03**

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
4-Chlorophenyl phenyl ether	<5	ug/L	EPA 8270	03/27/2000	KTL	
4-Nitrophenol	<20	ug/L	EPA 8270	03/27/2000	KTL	
Acenaphthene	<5	ug/L	EPA 8270	03/27/2000	KTL	
Acenaphthylene	<5	ug/L	EPA 8270	03/27/2000	KTL	
Anthracene	<5	ug/L	EPA 8270	03/27/2000	KTL	
Benzidine	<50	ug/L	EPA 8270	03/27/2000	KTL	
Benzo(a)anthracene	<5	ug/L	EPA 8270	03/27/2000	KTL	
Benzo(a)pyrene	<5	ug/L	EPA 8270	03/27/2000	KTL	
Benzo(b)fluoranthene	<5	ug/L	EPA 8270	03/27/2000	KTL	
Benzo(g,h,i)perylene	<5	ug/L	EPA 8270	03/27/2000	KTL	
Benzo(k)fluoranthene	<5	ug/L	EPA 8270	03/27/2000	KTL	
Bis(2-chloroethoxy)methane	<5	ug/L	EPA 8270	03/27/2000	KTL	
Bis(2-chloroethyl)ether	<5	ug/L	EPA 8270	03/27/2000	KTL	
Bis(2-chloroisopropyl)ether	<5	ug/L	EPA 8270	03/27/2000	KTL	
Bis(2-ethylhexyl)phthalate	9	ug/L	EPA 8270	03/27/2000	KTL	
Butylbenzyl phthalate	<5	ug/L	EPA 8270	03/27/2000	KTL	
Chrysene	<5	ug/L	EPA 8270	03/27/2000	KTL	
Di-N-butylphthalate	<5	ug/L	EPA 8270	03/27/2000	KTL	
Di-n-Octyl phthalate	<5	ug/L	EPA 8270	03/27/2000	KTL	
Dibenzo(a,h)anthracene	<5	ug/L	EPA 8270	03/27/2000	KTL	
Diethyl phthalate	<5	ug/L	EPA 8270	03/27/2000	KTL	
Dimethyl phthalate	<5	ug/L	EPA 8270	03/27/2000	KTL	
Fluoranthene	<5	ug/L	EPA 8270	03/27/2000	KTL	
Fluorene	<5	ug/L	EPA 8270	03/27/2000	KTL	
Hexachlorobenzene	<5	ug/L	EPA 8270	03/27/2000	KTL	
Hexachlorobutadiene	<5	ug/L	EPA 8270	03/27/2000	KTL	
Hexachlorocyclopentadiene	<5	ug/L	EPA 8270	03/27/2000	KTL	
Hexachloroethane	<5	ug/L	EPA 8270	03/27/2000	KTL	
Indeno(1,2,3-cd)pyrene	<5	ug/L	EPA 8270	03/27/2000	KTL	
Isophorone	<5	ug/L	EPA 8270	03/27/2000	KTL	
N-Nitrosodi-n-propylamine	<5	ug/L	EPA 8270	03/27/2000	KTL	
N-Nitrosodimethylamine	<5	ug/L	EPA 8270	03/27/2000	KTL	
N-Nitrosodiphenylamine	<5	ug/L	EPA 8270	03/27/2000	KTL	
Naphthalene by Method 8270	<5	ug/L	EPA 8270	03/27/2000	KTL	
Nitrobenzene	<5	ug/L	EPA 8270	03/27/2000	KTL	
Pentachlorophenol	<5	ug/L	EPA 8270	03/27/2000	KTL	
Phenanthrene	<5	ug/L	EPA 8270	03/27/2000	KTL	
Phenol	<5	ug/L	EPA 8270	03/27/2000	KTL	
Pyrene	<5	ug/L	EPA 8270	03/27/2000	KTL	

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**LABORATORY DETAIL REPORT****KAR Project No. : 001196****Client: City of Plainwell WWTP****Date Reported : 03/29/00****Project****Description : Sampling and analysis of one Effluent site for three consecutive days.****Sample ID : "24 Hr. Composite, 3/15-16/00, 8:38am-8:35am"****Sampled By : SNH of KAR Laboratories****Date Received : 03/16/2000****Sample Date : 03/16/2000****Sample Type : aqueous****Sample Time :****KAR Sample No. : 001196-03**

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep. Hg	Completed		EPA 245.2	03/17/2000	PML	
Prep. metals	Completed		EPA 300.200 x	03/17/2000	PML	
Antimony, total, low level	<0.002	mg/L	EPA 200.8	03/20/2000	DBL	
Arsenic, total, low level	<0.001	mg/L	EPA 200.8	03/20/2000	DBL	
Beryllium, total, low level	<0.001	mg/L	EPA 200.8	03/20/2000	DBL	
Cadmium, total, low level	<0.0002	mg/L	EPA 200.8	03/20/2000	DBL	
Chromium, total, low level	0.002	mg/L	EPA 200.8	03/20/2000	DBL	
Copper, total, low level	0.005	mg/L	EPA 200.8	03/20/2000	DBL	
Lead, total, low level	<0.001	mg/L	EPA 200.8	03/20/2000	DBL	
Mercury, total, low level	<0.0002	mg/L	EPA 245.2	03/18/2000	PML	
Nickel, total, low level	0.006	mg/L	EPA 200.8	03/20/2000	DBL	
Selenium, total, low level	<0.002	mg/L	EPA 270.2	03/24/2000	PML	
Silver, total, low level	<0.0005	mg/L	EPA 200.8	03/20/2000	DBL	
Thallium, total, low level	<0.002	mg/L	EPA 200.8	03/20/2000	DBL	
Zinc, total, low level	0.032	mg/L	EPA 200.8	03/20/2000	DBL	
Hardness	302	mg/L (as CaCO3)	SM 181 2340 B	03/23/2000	ALK	
Phenols, total	<0.02	mg/L	EPA 420.1	03/27/2000	MCB	
Prior. Poll. acids	See below		EPA 8270	03/27/2000	KTL	
Prior. Poll. base-neutrals	See below		EPA 8270	03/27/2000	KTL	
Prep. SV Acid/BN	Completed		EPA 3510	03/21/2000	SAS	
1,2,4-Trichlorobenzene 8270	<5	ug/L	EPA 8270	03/27/2000	KTL	
1,2-Dichlorobenzene by 8270	<5	ug/L	EPA 8270	03/27/2000	KTL	
1,2-Diphenylhydrazine	<5	ug/L	EPA 8270	03/27/2000	KTL	
1,3-Dichlorobenzene by 8270	<5	ug/L	EPA 8270	03/27/2000	KTL	
1,4-Dichlorobenzene by 8270	<5	ug/L	EPA 8270	03/27/2000	KTL	
2,3,7,8-TCDD by 8270	<5	ug/L	EPA 8270	03/27/2000	KTL	
2,3,6-Trichlorophenol	<5	ug/L	EPA 8270	03/27/2000	KTL	
2,4-Dichlorophenol	<5	ug/L	EPA 8270	03/27/2000	KTL	
2,4-Dimethylphenol	<5	ug/L	EPA 8270	03/27/2000	KTL	
2,4-Dinitrophenol	<20	ug/L	EPA 8270	03/27/2000	KTL	
2,4-Dinitrotoluene	<5	ug/L	EPA 8270	03/27/2000	KTL	
2,6-Dinitrotoluene	<5	ug/L	EPA 8270	03/27/2000	KTL	
2-Chloronaphthalene	<5	ug/L	EPA 8270	03/27/2000	KTL	
2-Chlorophenol	<5	ug/L	EPA 8270	03/27/2000	KTL	
2-Methyl-4,6-dinitrophenol	<20	ug/L	EPA 8270	03/27/2000	KTL	
2-Nitrophenol	<5	ug/L	EPA 8270	03/27/2000	KTL	
3,3'-Dichlorobenzidine	<20	ug/L	EPA 8270	03/27/2000	KTL	
4-Bromophenyl phenyl ether	<5	ug/L	EPA 8270	03/27/2000	KTL	
4-Chloro-3-methylphenol	<5	ug/L	EPA 8270	03/27/2000	KTL	

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**LABORATORY DETAIL REPORT****KAR Project No. : 001196****Client: City of Plainwell WWTP****Date Reported : 03/29/00****Project****Description : Sampling and analysis of one Effluent site for three consecutive days.****Sample ID : "Grab, 3/15/00"****Sampled By : SNH of KAR Laboratories****Date Received : 03/15/2000****Sample Date : 03/15/2000****Sample Type : aqueous****Sample Time : 8:38am****KAR Sample No. : 001196-05**

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Cyanide, total	<0.005	mg/L	EPA 335.2	03/22/2000	MCB	
Prior Poll. volatiles	See below		EPA 624	03/15/2000	JAR	
Prep. VOA	Completed		EPA 624	03/15/2000	JAR	
1,1,1-Trichloroethane	<1	ug/L	EPA 624	03/15/2000	JAR	
1,1,2,2-Tetrachloroethane	<1	ug/L	EPA 624	03/15/2000	JAR	
1,1,2-Trichloroethane	<1	ug/L	EPA 624	03/15/2000	JAR	
1,1-Dichloroethane	<1	ug/L	EPA 624	03/15/2000	JAR	
1,1-Dichloroethene	<1	ug/L	EPA 624	03/15/2000	JAR	
1,2-Dichlorobenzene	<1	ug/L	EPA 624	03/15/2000	JAR	
1,2-Dichloroethane	<1	ug/L	EPA 624	03/15/2000	JAR	
1,2-Dichloropropane	<1	ug/L	EPA 624	03/15/2000	JAR	
1,3-Dichlorobenzene	<1	ug/L	EPA 624	03/15/2000	JAR	
1,4-Dichlorobenzene	<1	ug/L	EPA 624	03/15/2000	JAR	
2-Chloroethylvinyl ether	<1	ug/L	EPA 624	03/15/2000	JAR	
Acrolein	<5	ug/L	EPA 624	03/15/2000	JAR	
Acrylonitrile	<1	ug/L	EPA 624	03/15/2000	JAR	
Benzene	<1	ug/L	EPA 624	03/15/2000	JAR	
Bromodichloromethane	<1	ug/L	EPA 624	03/15/2000	JAR	
Bromoform	<1	ug/L	EPA 624	03/15/2000	JAR	
Bromomethane	<1	ug/L	EPA 624	03/15/2000	JAR	
Carbon tetrachloride	<1	ug/L	EPA 624	03/15/2000	JAR	
Chlorobenzene	<1	ug/L	EPA 624	03/15/2000	JAR	
Chloroethane	<1	ug/L	EPA 624	03/15/2000	JAR	
Chloroform	<1	ug/L	EPA 624	03/15/2000	JAR	
Chloromethane	<1	ug/L	EPA 624	03/15/2000	JAR	
Cis-1,3-Dichloropropene	<1	ug/L	EPA 624	03/15/2000	JAR	
Dibromochloromethane	<1	ug/L	EPA 624	03/15/2000	JAR	
Ethylbenzene	<1	ug/L	EPA 624	03/15/2000	JAR	
Methylene chloride	<1	ug/L	EPA 624	03/15/2000	JAR	
Tetrachloroethene	<1	ug/L	EPA 624	03/15/2000	JAR	
Toluene	3.9	ug/L	EPA 624	03/15/2000	JAR	
Trans-1,2-Dichloroethene	<1	ug/L	EPA 624	03/15/2000	JAR	
Trans-1,3-Dichloropropene	<1	ug/L	EPA 624	03/15/2000	JAR	
Trichloroethene	<1	ug/L	EPA 624	03/15/2000	JAR	
Trichlorofluoromethane	<1	ug/L	EPA 624	03/15/2000	JAR	
Vinyl chloride	<1	ug/L	EPA 624	03/15/2000	JAR	

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**LABORATORY DETAIL REPORT****KAR Project No. : 001196****Client: City of Plainwell WWTP****Date Reported : 03/29/00****Project****Description : Sampling and analysis of one Effluent site for three consecutive days.****Sample ID : "24 Hr. Composite, 3/13-14/00, 8:35am-8:30am"****Sampled By : SNH of KAR Laboratories****Date Received : 03/14/2000****Sample Date : 03/14/2000****Sample Type : aqueous****Sample Time :****KAR Sample No. : 001196-01**

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep. Hg	Completed		EPA 245.2	03/16/2000	PML	
Prep. metals	Completed		EPA 30xx,200.x	03/15/2000	MTM	
Antimony, total, low level	<0.002	mg/L	EPA 200.8	03/20/2000	DBL	
Arsenic, total, low level	<0.001	mg/L	EPA 200.8	03/20/2000	DBL	
Beryllium, total, low level	<0.001	mg/L	EPA 200.8	03/20/2000	DBL	
Cadmium, total, low level	<0.0002	mg/L	EPA 200.8	03/20/2000	DBL	
Chromium, total, low level	0.013	mg/L	EPA 200.8	03/20/2000	DBL	
Copper, total, low level	0.015	mg/L	EPA 200.8	03/20/2000	DBL	
Lead, total, low level	<0.001	mg/L	EPA 200.8	03/20/2000	DBL	
Mercury, total, low level	<0.0002	mg/L	EPA 245.2	03/17/2000	PML	
Nickel, total, low level	0.009	mg/L	EPA 200.8	03/20/2000	DBL	
Selenium, total, low level	<0.002	mg/L	EPA 270.2	03/24/2000	PML	
Silver, total, low level	0.0006	mg/L	EPA 200.8	03/20/2000	DBL	
Thallium, total, low level	<0.002	mg/L	EPA 200.8	03/20/2000	DBL	
Zinc, total, low level	0.023	mg/L	EPA 200.8	03/20/2000	DBL	
Hardness	307	mg/L (as CaCO3)	SM181 2340 B	03/23/2000	ALK	
Phenols, total	<0.02	mg/L	EPA 420.1	03/27/2000	MCB	
Prior. Poll. acids	See below		EPA 8270	03/23/2000	KTL	
Prior. Poll. base-neutrals	See below		EPA 8270	03/23/2000	KTL	
Prep. SV Acid/BN	Completed		EPA 3510	03/16/2000	MJY	
1,2,4-Trichlorobenzene 8270	<5	ug/L	EPA 8270	03/23/2000	KTL	
1,2-Dichlorobenzene by 8270	<5	ug/L	EPA 8270	03/23/2000	KTL	
1,2-Diphenylhydrazine	<5	ug/L	EPA 8270	03/23/2000	KTL	
1,3-Dichlorobenzene by 8270	<5	ug/L	EPA 8270	03/23/2000	KTL	
1,4-Dichlorobenzene by 8270	<5	ug/L	EPA 8270	03/23/2000	KTL	
2,3,7,8-TCDD by 8270	<5	ug/L	EPA 8270	03/23/2000	KTL	
2,4,6-Trichlorophenol	<5	ug/L	EPA 8270	03/23/2000	KTL	
2,4-Dichlorophenol	<5	ug/L	EPA 8270	03/23/2000	KTL	
2,4-Dimethylphenol	<5	ug/L	EPA 8270	03/23/2000	KTL	
2,4-Dinitrophenol	<20	ug/L	EPA 8270	03/23/2000	KTL	
2,4-Dinitrotoluene	<5	ug/L	EPA 8270	03/23/2000	KTL	
2,5-Dinitrotoluene	<5	ug/L	EPA 8270	03/23/2000	KTL	
2-Chloronaphthalene	<5	ug/L	EPA 8270	03/23/2000	KTL	
2-Chlorophenol	<5	ug/L	EPA 8270	03/23/2000	KTL	
2-Methyl-4,6-dinitrophenol	<20	ug/L	EPA 8270	03/23/2000	KTL	
2-Nitrophenol	<5	ug/L	EPA 8270	03/23/2000	KTL	
3,3'-Dichlorobenzidine	<20	ug/L	EPA 8270	03/23/2000	KTL	
4-Bromophenyl phenyl ether	<5	ug/L	EPA 8270	03/23/2000	KTL	
4-Chloro-3-methylphenol	<5	ug/L	EPA 8270	03/23/2000	KTL	

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**LABORATORY DETAIL REPORT****KAR Project No. : 001196****Client: City of Plainwell WWTP****Date Reported : 03/29/00****Project****Description : Sampling and analysis of one Effluent site for three consecutive days.****Sample ID : "24 Hr. Composite, 3/13-14/00, 8:35am-8:30am"****Sampled By : SNH of KAR Laboratories****Date Received : 03/14/2000****Sample Date : 03/14/2000****Sample Type : aqueous****Sample Time :****KAR Sample No. : 001196-01**

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
4-Chlorophenyl phenyl ether	<5	ug/L	EPA 8270	03/23/2000	KTL	
4-Nitrophenol	<20	ug/L	EPA 8270	03/23/2000	KTL	
Acenaphthene	<5	ug/L	EPA 8270	03/23/2000	KTL	
Acenaphthylene	<5	ug/L	EPA 8270	03/23/2000	KTL	
Anthracene	<5	ug/L	EPA 8270	03/23/2000	KTL	
Benzidine	<50	ug/L	EPA 8270	03/23/2000	KTL	
Benzo(a)anthracene	<5	ug/L	EPA 8270	03/23/2000	KTL	
Benzo(a)pyrene	<5	ug/L	EPA 8270	03/23/2000	KTL	
Benzo(b)fluoranthene	<5	ug/L	EPA 8270	03/23/2000	KTL	
Benzo(g,h,i)perylene	<5	ug/L	EPA 8270	03/23/2000	KTL	
Benzo(k)fluoranthene	<5	ug/L	EPA 8270	03/23/2000	KTL	
Bis(2-chloroethoxy)methane	<5	ug/L	EPA 8270	03/23/2000	KTL	
Bis(2-chloroethyl)ether	<5	ug/L	EPA 8270	03/23/2000	KTL	
Bis(2-chloroisopropyl)ether	<5	ug/L	EPA 8270	03/23/2000	KTL	
Bis(2-ethylhexyl)phthalate	12	ug/L	EPA 8270	03/23/2000	KTL	
Butylbenzyl phthalate	<5	ug/L	EPA 8270	03/23/2000	KTL	
Chrysene	<5	ug/L	EPA 8270	03/23/2000	KTL	
Di-N-butylphthalate	<5	ug/L	EPA 8270	03/23/2000	KTL	
Di-n-Octyl phthalate	<5	ug/L	EPA 8270	03/23/2000	KTL	
Dibenz(a,h)anthracene	<5	ug/L	EPA 8270	03/23/2000	KTL	
Diethyl phthalate	<5	ug/L	EPA 8270	03/23/2000	KTL	
Dimethyl phthalate	<5	ug/L	EPA 8270	03/23/2000	KTL	
Fluoranthene	<5	ug/L	EPA 8270	03/23/2000	KTL	
Fluorene	<5	ug/L	EPA 8270	03/23/2000	KTL	
Hexachlorobenzene	<5	ug/L	EPA 8270	03/23/2000	KTL	
Hexachlorobutadiene	<5	ug/L	EPA 8270	03/23/2000	KTL	
Hexachlorocyclopentadiene	<5	ug/L	EPA 8270	03/23/2000	KTL	
Hexachloroethane	<5	ug/L	EPA 8270	03/23/2000	KTL	
Indeno(1,2,3-cd)pyrene	<5	ug/L	EPA 8270	03/23/2000	KTL	
Isophorone	<5	ug/L	EPA 8270	03/23/2000	KTL	
N-Nitrosodi-n-propylamine	<5	ug/L	EPA 8270	03/23/2000	KTL	
N-Nitrosodimethylamine	<5	ug/L	EPA 8270	03/23/2000	KTL	
N-Nitrosodiphenylamine	<5	ug/L	EPA 8270	03/23/2000	KTL	
Naphthalene by Method 8270	<5	ug/L	EPA 8270	03/23/2000	KTL	
Nitrobenzene	<5	ug/L	EPA 8270	03/23/2000	KTL	
Pentachlorophenol	<5	ug/L	EPA 8270	03/23/2000	KTL	
Phenanthrene	<5	ug/L	EPA 8270	03/23/2000	KTL	
Phenol	<5	ug/L	EPA 8270	03/23/2000	KTL	
Pyrene	<5	ug/L	EPA 8270	03/23/2000	KTL	

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**LABORATORY DETAIL REPORT****KAR Project No. : 001196****Client: City of Plainwell WWTP****Date Reported : 03/29/00****Project****Description : Sampling and analysis of one Effluent site for three consecutive days.****Sample ID : "Grab, 3/16/00"****Sampled By : SNH of KAR Laboratories****Date Received : 03/16/2000****Sample Date : 03/16/2000****Sample Type : aqueous****Sample Time : 8:35am****KAR Sample No. : 001196-06**

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Cyanide, total	<0.005	mg/L	EPA 335.2	03/22/2000	MCB	
Prior Poll volatiles	See below		EPA 624	03/20/2000	JAR	
Prep. VOA	Completed		EPA 624	03/20/2000	JAR	
1,1,1-Trichloroethane	<1	ug/L	EPA 624	03/20/2000	JAR	
1,1,2,2-Tetrachloroethane	<1	ug/L	EPA 624	03/20/2000	JAR	
1,1,2-Trichloroethane	<1	ug/L	EPA 624	03/20/2000	JAR	
1,1-Dichloroethane	<1	ug/L	EPA 624	03/20/2000	JAR	
1,1-Dichloroethane	<1	ug/L	EPA 624	03/20/2000	JAR	
1,2-Dichlorobenzene	<1	ug/L	EPA 624	03/20/2000	JAR	
1,2-Dichloroethane	<1	ug/L	EPA 624	03/20/2000	JAR	
1,2-Dichloropropane	<1	ug/L	EPA 624	03/20/2000	JAR	
1,3-Dichlorobenzene	<1	ug/L	EPA 624	03/20/2000	JAR	
1,4-Dichlorobenzene	<1	ug/L	EPA 624	03/20/2000	JAR	
2-Chloroethylvinyl ether	<1	ug/L	EPA 624	03/20/2000	JAR	
Acrolein	<5	ug/L	EPA 624	03/20/2000	JAR	
Acrylonitrile	<1	ug/L	EPA 624	03/20/2000	JAR	
Benzene	<1	ug/L	EPA 624	03/20/2000	JAR	
Bromodichloromethane	<1	ug/L	EPA 624	03/20/2000	JAR	
Bromoforn	<1	ug/L	EPA 624	03/20/2000	JAR	
Bromomethane	<1	ug/L	EPA 624	03/20/2000	JAR	
Carbon tetrachloride	<1	ug/L	EPA 624	03/20/2000	JAR	
Chlorobenzene	<1	ug/L	EPA 624	03/20/2000	JAR	
Chloroethane	<1	ug/L	EPA 624	03/20/2000	JAR	
Chloroform	<1	ug/L	EPA 624	03/20/2000	JAR	
Chloromethane	<1	ug/L	EPA 624	03/20/2000	JAR	
Cis-1,3-Dichloropropene	<1	ug/L	EPA 624	03/20/2000	JAR	
Dibromochloromethane	<1	ug/L	EPA 624	03/20/2000	JAR	
Ethylbenzene	<1	ug/L	EPA 624	03/20/2000	JAR	
Methylene chloride	<1	ug/L	EPA 624	03/20/2000	JAR	
Tetrachloroethane	<1	ug/L	EPA 624	03/20/2000	JAR	
Toluene	<1	ug/L	EPA 624	03/20/2000	JAR	
Trans-1,2-Dichloroethane	<1	ug/L	EPA 624	03/20/2000	JAR	
Trans-1,3-Dichloropropene	<1	ug/L	EPA 624	03/20/2000	JAR	
Trichloroethane	<1	ug/L	EPA 624	03/20/2000	JAR	
Trichlorofluoromethane	<1	ug/L	EPA 624	03/20/2000	JAR	
Vinyl chloride	<1	ug/L	EPA 624	03/20/2000	JAR	

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Section II (B)  
Attachment #6

Toxic Pollutant	Maximum Concentration (ug/l)	Maximum Concentration (ug/l)	Quantification Level Used (ug/l)	Number of Analyses	Sample Type
Individual Samples (ug/l)					
Silver	.30	.13	.50	3	<input type="checkbox"/> Grab <input checked="" type="checkbox"/> 24 Hr Comp
.30 <sup>1</sup>	.05 <sup>2</sup>	.06 <sup>3</sup>			
Zinc	32	26.6	1	3	<input type="checkbox"/> Grab <input checked="" type="checkbox"/> 24 Hr Comp
32 <sup>1</sup>	25 <sup>2</sup>	23 <sup>3</sup>			
Hardness (as CaCO <sub>3</sub> )	308 mg/L	306 mg/L	5 mg/L	3	<input type="checkbox"/> Grab <input checked="" type="checkbox"/> 24 Hr Comp
302 mg/L <sup>1</sup>	308 mg/L <sup>2</sup>	307 mg/L <sup>3</sup>			
Individual Samples (ug/l)					
Toluene	3.9	<2.9	1	3	<input type="checkbox"/> Grab <input checked="" type="checkbox"/> 24 Hr Comp
3.9 <sup>1</sup>	1.9 <sup>2</sup>	<1 <sup>3</sup>			
* Not used in Avg.					
BIS(2 Ethylhexyl Phthalate)	12	9.3	5	3	<input type="checkbox"/> Grab <input checked="" type="checkbox"/> 24 Hr Comp
7 <sup>1</sup>	12 <sup>2</sup>	9 <sup>3</sup>			
Individual Samples (ug/l)					
					<input type="checkbox"/> Grab <input type="checkbox"/> 24 Hr Comp

\* I believe most metals are due to addition of Ferric Chloride to the waste stream for PO<sub>4</sub> reduction.

Annual Testing DONE by City.  
Attachment (7) 3. Section II  
**KAR**Laboratories, Inc.

4425 Manchester Road  
Kalamazoo, MI 49001  
Phone 616 381-9666  
Fax 616 381-9698  
www.karlabs.com

**City of Plainwell WWTP**  
**129 Fairlane Street**  
**Plainwell, MI 49080-1272**

**Attn : Mr. Bryan D. Pond**

**KAR Project No. : 995707**  
**Date Reported : 11/23/99**  
**Date Activated : 11/09/99**  
**Date Due : 11/23/99**  
**Date Validated : 11/23/99**

**Project**  
**Description : Analysis of five aqueous samples.**

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 995707. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,



Michael J. Jaeger  
Director of Laboratories

KAR Laboratories, Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health.



**KAR**Laboratories, Inc.

## INVOICE

4425 Manchester Road

Kalamazoo, MI 49001

Phone 616 381-9666

Fax 616 381-9698

City of Plainwell WWTP  
129 Fairlane Street  
Plainwell, MI 49080-1272

Attn: Mr. Bryan D. Pond

Project No.: 995707  
Date Activated: 11/09/99  
Date Reported: 11/23/99  
PO#:

Project Desc.: Analysis of five aqueous samples.

Quan	Item	Each	Total
2	Arsenic, total, by ICP	10.00	20.00
3	BOD	30.00	90.00
2	Cadmium, total	10.00	20.00
2	Chromium, hexavalent	30.00	60.00
2	Chromium, total	10.00	20.00
2	Copper, total	10.00	20.00
2	Cyanide, total	40.00	80.00
2	Lead, total, by ICP	10.00	20.00
2	Molybdenum, total	10.00	20.00
2	Nickel, total	10.00	20.00
2	Nitrogen, ammonia	15.00	30.00
3	PH	5.00	15.00
2	Phenols, total	40.00	80.00
3	Phosphorus, total (as P)	25.00	75.00
2	Prep, Cr6 (aqueous)	0.00	0.00
2	Prep, metals (aqueous)	0.00	0.00
2	Selenium, total, by ICP	10.00	20.00
2	Silver, total	10.00	20.00
3	Suspended solids, total	15.00	45.00
2	Zinc, total	10.00	20.00
			=====
		SUBTOTAL	675.00
			-----
			675.00
			0.00
			=====
			675.00
			=====
		TOTAL DUE \$	675.00

Please indicate Project No. 995707 on check stub or voucher.

I.D. #38-2476290  
A FINANCE CHARGE OF 1 1/2% PER MONTH (18% PER YEAR)  
WILL BE ADDED TO BALANCES AFTER 12/23/99.  
ORIGINAL INVOICES ARE SENT TO ACCTS. PAYABLE.

## POSITIVE RESULTS SUMMARY REPORT

Client: *City of Plainwell WWTP*

KAR Project No.: **995707**

Date Reported: **11/23/1999**

**Project**

Description: *Analysis of five aqueous samples.*

Sample Description: **"Flexible Furniture, Composite"**

Test	Positive Result Concentration	Units
BOD	178	mg/L
Copper, total	30	ug/L
Nitrogen, ammonia	0.7	mg/L
Phosphorus, total (as P)	2.24	mg/L
Suspended solids, total	30	mg/L
Zinc, total	100	ug/L

Sample Description: **"Plainwell Paper, Grab"**

Test	Positive Result Concentration	Units
BOD	153	mg/L
Phosphorus, total (as P)	3.87	mg/L
Suspended solids, total	372	mg/L

Sample Description: **"Lawrence, Composite"**

Test	Positive Result Concentration	Units
BOD	203	mg/L
Chromium, total	80	ug/L
Copper, total	130	ug/L
Nickel, total	130	ug/L
Nitrogen, ammonia	2.2	mg/L
Phosphorus, total (as P)	1.34	mg/L
Silver, total	5	ug/L
Suspended solids, total	114	mg/L
Zinc, total	320	ug/L

*This Positive Results Summary Report is intended to provide an overview of the sample set and contains only results above the reporting limit. It should not be used as a substitute for the attached detail report.*

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Positive Results Summary Report

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# LABORATORY DETAIL REPORT

KAR Project No. : 995707

Client: City of Plainwell WWTP

Date Reported : 11/23/99

Project

Desc. : Analysis of five aqueous samples.

Sample ID : **"Flexible Furniture, Composite"**

Sampled By : JF of City of Plainwell

Sample Date : 11/8/1999

Sample Time : 1:00pm

Date Received : 11/9/1999

Sample Type : aqueous

KAR Sample No. : 995707-01

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep. metals	Completed		EPA 30xx,200.x	11/11/99	JPA	
Arsenic, total, by ICP	<100	ug/L	EPA 200.7	11/12/99	PML	
Cadmium, total	<5	ug/L	EPA 200.7	11/12/99	PML	
Chromium, total	<10	ug/L	EPA 200.7	11/12/99	PML	
Copper, total	30	ug/L	EPA 200.7	11/12/99	PML	
Lead, total, by ICP	<50	ug/L	EPA 200.7	11/12/99	PML	
Molybdenum, total	<20	ug/L	EPA 200.7	11/12/99	PML	
Nickel, total	<20	ug/L	EPA 200.7	11/12/99	PML	
Selenium, total, by ICP	<100	ug/L	EPA 200.7	11/12/99	PML	
Silver, total	<5	ug/L	EPA 200.7	11/12/99	PML	
Zinc, total	100	ug/L	EPA 200.7	11/12/99	PML	
BCD	178	mg/L	SM(18) 5210 B	11/10/99	AJT	
Cyanide, total	<5	ug/L	EPA 335.2	11/22/99	JMS	
Nitrogen, ammonia	0.7	mg/L	EPA 350.1	11/19/99	ALK	
Phosphorus, total (as P)	2.24	mg/L	SM(18) 4500-P E	11/16/99	AJT	
Suspended solids, total	30	mg/L	EPA 160.2	11/15/99	DRA	

Sample ID : **"Flexible Furniture, Grab"**

Sampled By : JF of City of Plainwell

Sample Date : 11/9/1999

Sample Time : 1:00pm

Date Received : 11/9/1999

Sample Type : aqueous

KAR Sample No. : 995707-02

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep. Cr6	Completed		EPA 218.5	11/10/99	PML	
Chromium, hexavalent	<50	ug/L	EPA 218.5	11/11/99	PML	
PH	8.1	S.U.	EPA 150.1	11/09/99	MEP	
Phenols, total	<20	ug/L	EPA 420.1	11/19/99	MCB	

Sample ID : **"Plainwell Paper, Grab"**

Sampled By : JF of City of Plainwell

Sample Date : 11/8/1999

Sample Time : 2:00pm

Date Received : 11/9/1999

Sample Type : aqueous

KAR Sample No. : 995707-03

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
BOD	153	mg/L	SM(18) 5210 B	11/10/99	AJT	
PH	8.6	S.U.	EPA 150.1	11/09/99	MEP	Sample received past holding time; result is approximate.
Phosphorus, total (as P)	3.87	mg/L	SM(18) 4500-P E	11/16/99	AJT	
Suspended solids, total	372	mg/L	EPA 160.2	11/15/99	DRA	

**KAR** Laboratories, Inc.

(616) 381-9666

Laboratory Detail Report

Page 1 of 2

## LABORATORY DETAIL REPORT

KAR Project No. : 995707

Client: City of Plainwell WWTP

Date Reported : 11/23/99

**Project**

Desc. : Analysis of five aqueous samples.

Sample ID : **"Lawrence, Composite"**

Sampled By : JF of City of Plainwell

Sample Date : 11/8/1999

Sample Time : 1:15pm

Date Received : 11/9/1999

Sample Type : aqueous

KAR Sample No. : 995707-04

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep. metals	Completed		EPA 30xx.200.x	11/11/99	JPA	
Arsenic, total, by ICP	<100	ug/L	EPA 200.7	11/12/99	PML	
Cadmium, total	<5	ug/L	EPA 200.7	11/12/99	PML	
Chromium, total	80	ug/L	EPA 200.7	11/12/99	PML	
Copper, total	130	ug/L	EPA 200.7	11/12/99	PML	
Lead, total, by ICP	<50	ug/L	EPA 200.7	11/12/99	PML	
Molybdenum, total	<20	ug/L	EPA 200.7	11/12/99	PML	
Nickel, total	130	ug/L	EPA 200.7	11/12/99	PML	
Selenium, total, by ICP	<100	ug/L	EPA 200.7	11/12/99	PML	
Silver, total	5	ug/L	EPA 200.7	11/12/99	PML	
Zinc, total	320	ug/L	EPA 200.7	11/12/99	PML	
BOD	203	mg/L	SM(18) 5210 B	11/10/99	AJT	
Cyanide, total	<5	ug/L	EPA 335.2	11/22/99	JMS	
Nitrogen, ammonia	2.2	mg/L	EPA 350.1	11/19/99	ALK	
Phosphorus, total (as P)	1.34	mg/L	SM(18) 4500-P E	11/16/99	AJT	
Suspended solids, total	114	mg/L	EPA 160.2	11/15/99	DRA	

Sample ID : **"Lawrence, Grab"**

Sampled By : JF of City of Plainwell

Sample Date : 11/9/1999

Sample Time : 1:15pm

Date Received : 11/9/1999

Sample Type : aqueous

KAR Sample No. : 995707-05

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep. Cr6	Completed		EPA 218.5	11/10/99	PML	
Chromium, hexavalent	<50	ug/L	EPA 218.5	11/11/99	PML	
PH	7.6	S.U.	EPA 150.1	11/09/99	MEP	
Phenols, total	<20	ug/L	EPA 420.1	11/19/99	MCB	

**KAR**Laboratories, Inc.

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Laboratory Detail Report

Page 2 of 2

\* BIO-SOLIDS

PLAINWELL WWTP  
LAB ANALYSIS - 1999

	3/30/99	5/20/99	9/14/99	10/22/99	10/22/99	10/22/99	10/22/99	Average	Maximum	Table 1	Table 3
	2ND QTR.	2ND. QTR.	4TH. QTR.	NE HT	NW HT	SE HT	SW HT				
DENSITY	8.49	8.49	8.43	8.39	8.46	8.48	8.46	8.46	8.49		
MERCURY	4.11	3.1	17.2	0.5	0.5	0.5	0.5	3.77	17.20	57	17
NITROGEN, AMMONIA	11000	14000	38000	22700	13900	16700	15400	18814.29	38000.00		
NITROGEN, TOTAL	46600	47400	149000	54600	50100	41600	48600	62557.14	149000.00		
NITROGEN, TOTAL AVAILABLE	27	27.45	86.4	0	0	0	0	20.12	86.40		
NITROGEN, TOTAL KJELDAHL	47000	47000	150000	54600	50100	41600	48600	62700.00	150000.00		
PHOSPHATE	52700	36300	44200	34300	30200	43100	31500	38900.00	52700.00		
CHLORIDE	11000	6160	24200	7400	5280	4000	5410	9084.29	24200.00		
NITROGEN, NITRATE	25.7	23.9	80	35	25	20	25	33.51	80.00		
SULFATE	933	119	480	16000	9730	3070	8450	5540.29	16000.00		
BARIUM	707	757	2430	1030	898	941	895	1094.00	2430.00		
CADMIUM	5.71	3.84	7.12	8.6	4.6	7.5	5.3	6.10	8.60	85	39
CALCIUM	43100	32900	97800	49900	42200	42000	42800	50100.00	97800.00		
CHROMIUM	117	144	280	153	120	163	135	158.86	280.00	3000	1200
COPPER	763	686	1910	814	707	817	779	925.14	1910.00	4300	1500
LEAD	44.5	48	157	67	67	62	75	74.36	157.00	840	300
MAGNESIUM	5380	4580	13200	5690	4840	4600	5000	6184.29	13200.00		
MOLYBDENUM	3.39	6.58	8	10	10	9	10	8.14	10.00	75	-
NICKEL	72.3	55.7	153	66	55	69	82	76.14	153.00	420	420
POTASSIUM	1630	1700	4850	2140	1550	1560	1500	2132.86	4850.00		
SILVER	31.2	27.7	59.5	131	82.2	138	82.7	78.90	138.00		
SODIUM	5620	3080	12200	5500	4010	3170	4080	5380.00	12200.00		
ZINC	1200	1140	2880	1240	1020	1220	1080	1397.14	2880.00	7500	2800
ARSENIC	1.2	1.03	0.4	7.5	7.5	6.9	7.5	4.58	7.50	75	41
SELENIUM	0.129	0.406	0.4	5	3.8	4.5	4.1	2.82	5.00	100	36
SOLIDS, TOTAL	3.89	4.19	1.25	3.14	4.56	5.62	4.42	3.87	5.62		

DEVELOPED BY:  
SYNAGRO MIDWEST

Delivery Group: 1999:0002647  
 Customer Name: Synagro of Michigan  
 Address: 323 Martindale Street

Project #: 990300L  
 Contact Name: Mr. Jim Rosendall  
 : 323 Martindale Street

10/ 7/99

Sparta, MI 49345

: Sparta, MI 49345

Sampled By : Client

Project Name: Land Application

Lab Log #: 1999:0002647-1		Client Sample ID: Plainwell WWTP-4th Quarter			Sample Received: 9/15/99		Sample Date: 9/14/99	
Parameter	Units	As Received	Dry Wt. Basis	Analyst	Method #	Analysis Date	TABLE 3 LIMITS	As Rcvd MDL
Prep: Mercury				BYLSMA		9/21/99		
Prep: Metals Digestion				BYLSMA		9/17/99		
Prep: TKN Digestion/Distillation				SCHMITT		9/16/99		
Density	lb/gal	8.43		SIMONS	SM2710F	9/20/99		1.00
Mercury	mg/kg	0.215	17.2	BYLSMA	7470	10/ 6/99	17	0.020
Nitrogen, Ammonia as N	mg/kg	480	38000	SCHMITT	350.3	9/16/99		1.0
Nitrogen, Total	mg/kg	1870	149000	HOCH	Calculation	9/20/99		1.00
Nitrogen, Total Available	lb/ton	1.08	86.4	HOCH	Calculation	9/20/99		0.100
Nitrogen, Total Kjeldahl	mg/kg	1900	150000	SCHMITT	351.4	9/16/99		0.1
pH	S.U.	7.19		SIMONS	150.1	9/15/99		1.00
Phosphate, Total as P	mg/kg	553	44200	SIMONS	365.3	9/17/99		5.00
Chloride	mg/kg	303	24200	HOCH	9056	9/15/99		1.00
Nitrogen, Nitrate as N	mg/kg	<1.00	<80.0	HOCH	9056	9/15/99		1.00
Sulfate	mg/kg	6.00	480	HOCH	9056	9/15/99		1.00
Barium	mg/kg	30.3	2430	BYLSMA	6010A	9/21/99		0.010
Cadmium	mg/kg	0.089	7.12	BYLSMA	6010A	9/21/99	39	0.020
Calcium	mg/kg	1220	97800	BYLSMA	6010A	9/21/99		0.020
Chromium	mg/kg	3.49	280	BYLSMA	6010A	9/21/99	1200	0.040
Copper	mg/kg	23.9	1910	BYLSMA	6010A	9/21/99	1500	0.020
Lead	mg/kg	1.96	157	BYLSMA	6010A	9/21/99	300	0.150
Magnesium	mg/kg	165	13200	BYLSMA	6010A	9/21/99		0.050
Molybdenum	mg/kg	<0.100	<8.00	BYLSMA	6010A	9/21/99	75	0.100
Nickel	mg/kg	1.92	153	BYLSMA	6010A	9/21/99	420	0.100
Potassium	mg/kg	60.6	4850	BYLSMA	6010A	9/21/99		5.00
Silver	mg/kg	0.744	59.5	BYLSMA	6010A	9/21/99		0.030
Sodium	mg/kg	153	12200	BYLSMA	6010A	9/21/99		0.100
Zinc	mg/kg	36.0	2880	BYLSMA	6010A	9/21/99	2800	0.010
Arsenic	mg/kg	<0.005	<0.400	BYLSMA	7060	9/22/99	41	0.005
Selenium	mg/kg	<0.005	<0.400	BYLSMA	7060	9/22/99	36	0.005
Solids, Total (TS)	%	1.25		SCHMITT	160.3	9/16/99		0.010
Solids, Total Volatile (TVS)	%	58.9		SIMONS	160.4	9/16/99		1.00

Table 3 "High Quality Pollutant Concentration Limits" (monthly averages)

Robert Erickson, Laboratory Director

Prein&Newhof  
 Engineers • Surveyors • Environmental & Soils Laboratory

3960 Evergreen NE Grand Rapids, MI 49525 Telephone 616-864-7600 Fax 616-864-4222 lab@preinnewhof.com

Delivery Group: 1999:0001325  
 Customer Name: Synagro Technologies  
 Address: 323 Martindale Street

Project #: 990300L

6/2/99

Contact Name: Mr. Don Ponma  
 : 323 Martindale Street

Sparta, MI 49345

: Sparta, MI 49345.

Project Name: Land Application

Sampled By: Client

Lab Log #: 1999:0001325-1		Client Sample ID: Plainwell WW1P--2nd Quarter			Sample Received: 5/20/99		Sample Date: 5/20/99	
Parameter	Units	As Received	Dry Wt. Basis	Analyst	Method #	Analysis Date	TABLE 3 LIMITS	As Rcvd MDL
Prep: Mercury				BYLSMA		5/24/99		
Prep: Metals Digestion				BYLSMA		5/21/99		
Prep: TKN Digestion/Distillation				SCHMITT		5/21/99		
Density	lb/gal	8.49		SIMONS	SM2710F	5/21/99		1.00
Mercury	mg/kg	0.130	3.10	BYLSMA	7470	5/25/99	17	0.020
Nitrogen, Ammonia as N	mg/kg	570	14000	SCHMITT	350.3	5/21/99		1.0
Nitrogen, Total	mg/kg	1990	47400	HOCH	Calculation	5/24/99		1.00
Nitrogen, Total Available	lb/ton	1.15		HOCH	Calculation	5/24/99		0.100
Nitrogen, Total Kjeldahl	mg/L	2000		SCHMITT	351.4	5/21/99		0.1
pH	S.U.	6.85		SCHMITT	150.1	5/20/99		1.00
Phosphate, Total as P	mg/kg	1520	36300	SIMONS	365.3	5/21/99		5.00
Chloride	mg/kg	258	6160	HOCH	9056	5/20/99		1.00
Nitrogen, Nitrate as N	mg/kg	1.00	23.9	HOCH	9056	5/20/99		1.00
Sulfate	mg/kg	5.00	119	HOCH	9056	5/20/99		1.00
Barium	mg/kg	31.7	757	BYLSMA	6010A	5/26/99		0.010
Cadmium	mg/kg	0.161	3.84	BYLSMA	6010A	5/26/99	39	0.020
Calcium	mg/kg	1380	32900	BYLSMA	6010A	5/26/99		0.020
Chromium	mg/kg	6.02	144	BYLSMA	6010A	5/26/99	1200	0.040
Copper	mg/kg	28.7	686	BYLSMA	6010A	5/26/99	1500	0.020
Lead	mg/kg	2.01	48.0	BYLSMA	6010A	5/26/99	300	0.150
Magnesium	mg/kg	192	4580	BYLSMA	6010A	5/26/99		0.050
Molybdenum	mg/kg	0.276	6.58	BYLSMA	6010A	5/26/99	75	0.100
Nickel	mg/kg	2.33	55.7	BYLSMA	6010A	5/26/99	420	0.100
Potassium	mg/kg	71.1	1700	BYLSMA	6010A	5/26/99		5.00
Silver	mg/kg	1.16	27.7	BYLSMA	6010A	5/26/99		0.030
Sodium	mg/kg	129	3080	BYLSMA	6010A	5/26/99		0.100
Zinc	mg/kg	47.7	1140	BYLSMA	6010A	5/26/99	2800	0.010
Arsenic	mg/kg	0.043	1.03	BYLSMA	7000 Series	5/25/99	41	0.005
Selenium	mg/kg	0.017	0.406	BYLSMA	7000 Series	5/25/99	36	0.005
Solids, Total (TS)	%	4.19		SCHMITT	160.3	5/21/99		0.010
Solids, Total Volatile (TVS)	%	64.2		SIMONS	160.4	5/24/99		1.00

Table 3 "High Quality Pollutant Concentration Limits" (monthly averages)

Robert Erickson, Laboratory Director



Prein&Newhof  
 Engineers • Surveyors • Environmental & Soils Laboratory

5260 Evergreen NE Grand Rapids, MI 49525 Telephone 616-364-7600 Fax 616-364-4222 lab@preinnewhof.com

Delivery Group: 1999:0000729  
 Customer Name: Synagro Technologies  
 Address: 323 Martindale Street

Sparta, MI 49345

Project #: 96210L

4/ 9/99

Contact Name: Mr. Don Ponma  
 : 323 Martindale Street

: Sparta, MI 49345

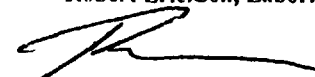
Project Name: Land Application

Sampled By: Client

Lab Log #: 1999:0000729-1		Client Sample ID: City of Plainwell WWTP-2nd Quarter			Sample Received: 3/30/99		Sample Date: 3/30/99	
Parameter	Units	As Received	Dry Wt. Basis	Analyst	Method #	Analysis Date	TABLE 3 LIMITS	As Rcvd MDL
Prep: Mercury				BYLSMA		4/ 5/99		
Prep: Metals Digestion				BYLSMA		3/31/99		
Prep: TKN Digestion/Distillation				SCHMITT		4/ 1/99		
Density	lb/gal	8.49		SIMONS	SM2710F	4/ 7/99		1.00
Mercury	mg/kg	0.160	4.11	BYLSMA	7470	4/ 6/99	17	0.020
Nitrogen, Ammonia as N	mg/kg	440	11000	SCHMITT	350.3	4/ 1/99		1.0
Nitrogen, Total	mg/kg	1810	46600	ERICKSON	Calculation	4/ 9/99		1.00
Nitrogen, Total Available	lb/ton	1.05	27.0	ERICKSON	Calculation	4/ 9/99		0.100
Nitrogen, Total Kjeldahl	mg/kg	1800	47000	SCHMITT	351.4	4/ 1/99		0.1
pH	S.U.	7.12		SIMONS	150.1	3/31/99		1.00
Phosphate, Total as P	mg/kg	2050	52700	SIMONS	365.3	4/ 5/99		5.00
Chloride	mg/kg	426	11000	ERICKSON	9056	4/ 9/99		1.00
Nitrogen, Nitrate as N	mg/kg	<1.00	<25.7	ERICKSON	9056	4/ 9/99		1.00
Sulfate	mg/kg	36.3	933	ERICKSON	9056	4/ 9/99		1.00
Barium	mg/kg	27.5	707	BYLSMA	6010A	4/ 2/99		0.010
Cadmium	mg/kg	0.222	5.71	BYLSMA	6010A	4/ 2/99	39	0.020
Calcium	mg/kg	1680	43100	BYLSMA	6010A	4/ 2/99		0.020
Chromium	mg/kg	4.55	117	BYLSMA	6010A	4/ 2/99	1200	0.040
Copper	mg/kg	29.7	763	BYLSMA	6010A	4/ 2/99	1500	0.020
Lead	mg/kg	1.73	44.5	BYLSMA	6010A	4/ 2/99	300	0.150
Magnesium	mg/kg	209	5380	BYLSMA	6010A	4/ 2/99		0.050
Molybdenum	mg/kg	0.132	3.39	BYLSMA	6010A	4/ 2/99	75	0.100
Nickel	mg/kg	2.81	72.3	BYLSMA	6010A	4/ 2/99	420	0.100
Potassium	mg/kg	63.3	1630	BYLSMA	6010A	4/ 2/99		5.00
Silver	mg/kg	1.21	31.2	BYLSMA	6010A	4/ 2/99		0.030
Sodium	mg/kg	219	5620	BYLSMA	6010A	4/ 2/99		0.100
Zinc	mg/kg	46.6	1200	BYLSMA	6010A	4/ 2/99	2800	0.010
Arsenic	mg/kg	0.047	1.20	BYLSMA	SM3113B	4/ 1/99	41	0.005
Selenium	mg/kg	<0.005	<0.129	BYLSMA	SM3113B	4/ 1/99	36	0.005
Solids, Total (TS)	%	3.89		SCHMITT	160.3	4/ 1/99		
Solids, Total Volatile (TVS)	%	57.1		SIMONS	160.4	4/ 2/99		0.100

Table 3 "High Quality Pollutant Concentration Limits" (monthly averages)

Robert Erickson, Laboratory Director



Prein&Newhof  
 Engineers • Surveyors • Environmental & Soils Laboratory

3260 Evergreen NE  
 Grand Rapids, MI 49525  
 Telephone 616-364-7600  
 Fax 616-364-4222  
 lab@preinnewhof.com



10/25/99 10:09 To: Mr. Bryan D. Pond

From: Jennifer Kosak

KAR Labs 616 381-9698 Page 2/5

LABORATORY REPORT

Client: City of Plainwell WWTP

KAR Project No.: 995225

Date Reported: 10/22/99

Project Description: Sampling and analysis of four sludge sites.

Sample ID: "NE HT"

Sampled By: SNH of KAR Laboratories

Date Received: 10/15/99

Sample Date: 10/15/99

Sample Type: sludge

Sample Time: 10:16am

KAR Sample No.: 995225-01

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep \$25 addn'l	Completed			10/19/99	ALK	AVERAGES:
Prep Hg	Completed		EPA 7471A	10/19/99	JPA	
Prep metals	Completed		EPA 3050	10/19/99	JPA	
Arsenic total	7.5	mg/kg total solids	EPA 8020	10/20/99	DBL	5.96
Barium total	1030	mg/kg total solids	EPA 6010B	10/20/99	PML	1238.8
Cadmium total	8.6	mg/kg total solids	EPA 7131A	10/21/99	DBL	6.624
Calcium total	49,900	mg/kg total solids	EPA 6010B	10/20/99	PML	54940
Chromium total	153	mg/kg total solids	EPA 6010B	10/20/99	PML	170.2
Copper total	814	mg/kg total solids	EPA 6010B	10/20/99	PML	1005
Cobalt total	67	mg/kg total solids	EPA 6010B	10/20/99	PML	86.6
Cesium total	5590	mg/kg total solids	EPA 6010B	10/20/99	PML	6660
Mercury total	0.5	mg/kg total solids	EPA 7471A	10/20/99	PML	3.84
Molybdenum total	10	mg/kg total solids	EPA 6010B	10/20/99	PML	9.4
Nickel total	55	mg/kg total solids	EPA 6010B	10/20/99	PML	81
Potassium total	2140	mg/kg total solids	EPA 6010B	10/20/99	PML	2320
Selenium total	5.0	mg/kg total solids	EPA 8020	10/20/99	DBL	3.56
Silver total	131	mg/kg total solids	EPA 6010B	10/20/99	PML	98.68
Sodium total	5500	mg/kg total solids	EPA 6010B	10/20/99	PML	5792
Zinc total	1240	mg/kg total solids	EPA 6010B	10/20/99	PML	1488
Chloride	7400	mg/kg total solids	SM(18) 4500-Cl-E	10/18/99	ALK	9258
Density	8.39	lbs/gallon	SM(18) 2710 F	10/21/99	AJT	8.44
Nitrogen ammonia	22,700	mg/kg total solids	EPA 350 1	10/19/99	ALK	21340
Nitrogen nitrate	<35	mg/kg total solids	EPA 353 2	10/15/99	JMS	37
Nitrogen total	54,500	mg/kg total solids	EPA 351 1, 353 2	10/21/99	ALK	68780
Nitrogen total kjeldahl	54,600	mg/kg total solids	EPA 351 1	10/20/99	ALK	68980
PH	7.4	S.U.	EPA 150 1	10/15/99	MCB	
Phosphorus total (as P)	34,300	mg/kg total solids	SM(18) 4500-P-E	10/20/99	AJT	36660
Solids total	3.14	% by weight	SM(18) 2540 B	10/20/99	FBA	
Solids volatile	53.62	% of total solids	EPA 160.4	10/20/99	FBA	
Sulfate	15,000	mg/kg total solids	EPA 300.0A	10/20/99	ALK	36

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KAR Laboratories, Inc.

(616) 381-9666

Page 2

LABORATORY REPORTClient: *City of Plainwell WWTP*

KAR Project No. : 995225

Date Reported : 10/22/99

Project Description : *Sampling and analysis of four sludge sites.*Sample ID : **"NW HT"**Sampled By : *SNH of KAR Laboratories*

Date Received : 10/15/99

Sample Date : 10/15/99

Sample Type : *sludge*

Sample Time : 10:10am

KAR Sample No. : 995225-02

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep. \$25 addn'l	Completed			10/18/99	ALK	
Prep. Hg	Completed		EPA 7471A	10/19/99	JPA	
Prep. metals	Completed		EPA 3050	10/19/99	JPA	
Arsenic, total	7.5	mg/kg total solids	EPA 8020	10/20/99	DBL	
Barium, total	898	mg/kg total solids	EPA 8010B	10/20/99	PML	
Cadmium, total	4.6	mg/kg total solids	EPA 7131A	10/21/99	DBL	
Calcium, total	42,200	mg/kg total solids	EPA 8010B	10/20/99	PML	
Chromium, total	120	mg/kg total solids	EPA 8010B	10/20/99	PML	
Copper, total	707	mg/kg total solids	EPA 8010B	10/20/99	PML	
Lead, total	67	mg/kg total solids	EPA 8010B	10/20/99	PML	
Mesium, total	4840	mg/kg total solids	EPA 8010B	10/20/99	PML	
Mercury, total	<0.5	mg/kg total solids	EPA 7471A	10/20/99	PML	
Molybdenum, total	10	mg/kg total solids	EPA 8010B	10/20/99	PML	
Nickel, total	55	mg/kg total solids	EPA 8010B	10/20/99	PML	
Potassium, total	1550	mg/kg total solids	EPA 8010B	10/20/99	PML	
Selenium, total	3.8	mg/kg total solids	EPA 8020	10/20/99	DBL	
Silver, total	82.2	mg/kg total solids	EPA 8010B	10/20/99	PML	
Sodium, total	4010	mg/kg total solids	EPA 8010B	10/20/99	PML	
Zinc, total	1020	mg/kg total solids	EPA 8010B	10/20/99	PML	
Chloride	5280	mg/kg total solids	SM(18) 4500-CL-E	10/18/99	ALK	
Density	8.46	lbs/gallon	SM(18) 2710 F	10/21/99	AJT	
Nitrogen, ammonia	13,900	mg/kg total solids	EPA 350.1	10/19/99	ALK	
Nitrogen, nitrate	<25	mg/kg total solids	EPA 353.2	10/15/99	JMS	
Nitrogen, total	50,100	mg/kg total solids	EPA 351.1, 353.2	10/21/99	ALK	
Nitrogen, total kjeldahl	50,100	mg/kg total solids	EPA 351.1	10/20/99	ALK	
PH	7.3	S U	EPA 130.1	10/15/99	MCB	
Phosphorus, total (as P)	30,200	mg/kg total solids	SM(18) 4500-P E	10/20/99	AJT	
Solids, total	4.56	% by weight	SM(18) 2540 B	10/20/99	FBA	
Solids, volatile	54.54	% of total solids	EPA 180.4	10/20/99	FBA	
Sulfate	9730	mg/kg total solids	EPA 300.0A	10/20/99	ALK	

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*KAR Laboratories, Inc.*

(616) 381-9666

Page 3

10/25/99 10:09 To: Mr. Bryan D. Pond

From: Jennifer Kosak

KAR Labs 616 381-9698 Page 4/5

LABORATORY REPORTClient: *City of Plainwell WWTP*

KAR Project No. : 995225

Date Reported : 10/22/99

Project Description : *Sampling and analysis of four sludge sites.*Sample ID : "SE HT"Sampled By : *SNH of KAR Laboratories*

Date Received : 10/15/99

Sample Date : 10/15/99

Sample Type : *sludge*

Sample Time : 9:55am

KAR Sample No. : 995225-03

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep \$25 addn'l	Completed			10/18/99	ALK	
Prep Hg	Completed		EPA 7471A	10/19/99	JPA	
Prep. metals	Completed		EPA 3050	10/19/99	JPA	
Arsenic, total	6.9	mg/kg total solids	EPA 6020	10/20/99	DBL	
Barium, total	941	mg/kg total solids	EPA 6010B	10/20/99	PML	
Cadmium, total	7.5	mg/kg total solids	EPA 7131A	10/21/99	DBL	
Calcium, total	42,000	mg/kg total solids	EPA 6010B	10/20/99	PML	
Chromium, total	163	mg/kg total solids	EPA 6010B	10/20/99	PML	
Copper, total	817	mg/kg total solids	EPA 6010B	10/20/99	PML	
Lead, total	62	mg/kg total solids	EPA 6010B	10/20/99	PML	
Mesium, total	4600	mg/kg total solids	EPA 6010B	10/20/99	PML	
Mercury, total	<0.5	mg/kg total solids	EPA 6010B	10/20/99	PML	
Molybdenum, total	9	mg/kg total solids	EPA 6010B	10/20/99	PML	
Nickel, total	59	mg/kg total solids	EPA 6010B	10/20/99	PML	
Potassium, total	1560	mg/kg total solids	EPA 6010B	10/20/99	PML	
Selenium, total	4.5	mg/kg total solids	EPA 6020	10/20/99	DBL	
Silver, total	138	mg/kg total solids	EPA 6010B	10/20/99	PML	
Sodium, total	3170	mg/kg total solids	EPA 6010B	10/20/99	PML	
Zinc, total	1220	mg/kg total solids	EPA 6010B	10/20/99	PML	
Chloride	4000	mg/kg total solids	SM(18) 4500-Cl-E	10/18/99	ALK	
Density	8.48	lbs/gallon	SM(18) 2710 F	10/21/99	AJT	
Nitrogen ammonia	16.700	mg/kg total solids	EPA 350.1	10/19/99	ALK	
Nitrogen nitrate	<20	mg/kg total solids	EPA 353.2	10/15/99	JMS	
Nitrogen total	41.600	mg/kg total solids	EPA 351.1, 353.2	10/21/99	ALK	
Nitrogen total Kjeldahl	41.600	mg/kg total solids	EPA 351.1	10/20/99	ALK	
pH	7.3	S.U.	EPA 150.1	10/15/99	MCB	
Phosphorus total (as P)	43.100	mg/kg total solids	SM(18) 4500-P-E	10/21/99	AJT	
Solids total	5.62	% by weight	SM(18) 2540 B	10/20/99	FBA	
Solids volatile	54.82	% of total solids	EPA 160.4	10/20/99	FBA	
Sulfate	3070	mg/kg total solids	EPA 300.0A	10/20/99	ALK	

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KAR Laboratories, Inc.

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Page 4

10/25/99 10:09 To: Mr. Bryan D. Pond

From: Jennifer Kosak

KAR Labs 616 381-9666 Page 5/5

LABORATORY REPORT

Client: City of Plainwell WWTP

KAR Project No. : 995225

Date Reported : 10/22/99

Project Description : Sampling and analysis of four sludge sites.

Sample ID : <b>"SW HT"</b>						
Sampled By : SNH of KAR Laboratories				Date Received : 10/15/99		
Sample Date : 10/15/99				Sample Type : sludge		
Sample Time : 10:02am				KAR Sample No. : 995225-04		
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep. \$25 addn'l	Completed			10/18/99	ALK	
Prep. Hg	Completed		EPA 7471A	10/19/99	JPA	
Prep. metals	Completed		EPA 3030	10/19/99	JPA	
Arsenic total	7.5	mg/kg total solids	EPA 6020	10/20/99	DBL	
Barium total	895	mg/kg total solids	EPA 6010B	10/20/99	PML	
Cadmium total	5.3	mg/kg total solids	EPA 7131A	10/21/99	DBL	
Calcium total	42,800	mg/kg total solids	EPA 6010B	10/20/99	PML	
Chromium total	135	mg/kg total solids	EPA 6010B	10/20/99	PML	
Copper total	779	mg/kg total solids	EPA 6010B	10/20/99	PML	
Cobalt total	75	mg/kg total solids	EPA 6010B	10/20/99	PML	
Cesium total	5000	mg/kg total solids	EPA 6010B	10/20/99	PML	
Mercury total	<0.5	mg/kg total solids	EPA 7471A	10/20/99	PML	
Molybdenum total	10	mg/kg total solids	EPA 6010B	10/20/99	PML	
Nickel total	62	mg/kg total solids	EPA 6010B	10/20/99	PML	
Potassium total	1500	mg/kg total solids	EPA 6010B	10/20/99	PML	
Selenium total	4.1	mg/kg total solids	EPA 6020	10/20/99	DBL	
Silver total	82.7	mg/kg total solids	EPA 6010B	10/20/99	PML	
Sodium total	4080	mg/kg total solids	EPA 6010B	10/20/99	PML	
Zinc total	1080	mg/kg total solids	EPA 6010B	10/20/99	PML	
Chloride	5410	mg/kg total solids	SM(18) 4500-CL-E	10/18/99	ALK	
Density	8.46	lbs/gallon	SM(18) 2710 F	10/21/99	AJT	
Nitrogen ammonia	15,400	mg/kg total solids	EPA 350.1	10/19/99	ALK	
Nitrogen nitrate	<25	mg/kg total solids	EPA 353.2	10/15/99	JMS	
Nitrogen total	48,600	mg/kg total solids	EPA 351.1, 353.2	10/21/99	ALK	
Nitrogen total kjeldahl	48,600	mg/kg total solids	EPA 351.1	10/20/99	ALK	
pH	7.4	S.U.	EPA 150.1	10/15/99	MCB	
Phosphorus total (as P)	31,500	mg/kg total solids	SM(18) 4500-P-E	10/20/99	AJT	
Solids total	4.42	% by weight	SM(18) 2540 B	10/20/99	FBA	
Solids volatile	53.95	% of total solids	EPA 160.4	10/20/99	FBA	
Sulfate	8450	mg/kg total solids	EPA 300.0A	10/20/99	ALK	

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Page 5

# ATTACHMENT #13 Section II

Owner	Farmer	MDEQ#	Acre	Latitude	Longitude
Keith Cool	Keith Cool	01S11W28-KC02	42		
Keith Cool	Keith Cool	01S11W30-KC01	52		
Keith Cool	Keith Cool	01S11W30-KC02	34		
Keith Cool	Keith Cool	01S11W30-KC04	37		
Keith Cool	Keith Cool	01S11W30-KC06	26		
George Doster	George Doster	02N10W32-GD01	12		
George Doster	George Doster	01N10W03-GD01	8		
George Doster	George Doster	01N10W03-GD02	12		
George Doster	George Doster	01N11W23-GD01	17		
George Doster	George Doster	01N11W23-GD02	24.6		
Paul Hazen	Paul Hazen	02N11W28-PH01	20		
Paul Hazen	Paul Hazen	02N11W33-PH01	70		
Peter Jasinskis	Jim Sinkler	01N13W34-PJ01	15	42:25:049	85:48:385
Peter Jasinskis	Jim Sinkler	01N13W35-PJ01	35	42:25:295	85:48:935
Dan Klein	Dan Klein	01S11W11-DK01	30		
Dan Klein	Dan Klein	01S11W21-DK01	20		
Dan Klein	Dan Klein	01S11W21-DK03	20		
Gary Langford	Gary Langford	01N11W16-GL01	23	42:27:900	85:36:734
Ron Roobol	Ron Roobol	02N11W22-RR06	20		
Jim Sinkler	Jim Sinkler	01N13W35-JS01	40	42:25:424	85:48:946

Dell Engineering, Inc.  
A member of the ERM Group

3352 128<sup>th</sup> Avenue  
Holland, MI 49424-9263  
(616) 399-3500  
(616) 399-3777 (fax)

30 March 2000  
Reference: CH101.00.01

Mr. Bryan Pond  
Superintendent  
City of Plainwell WWTP  
129 Fairlane Street  
Plainwell, Michigan 49080-1272



Re: Whole Effluent Toxicity Test Results

Dear Mr. Pond:

Enclosed please find two (2) copies of the Toxicity Test Report containing results of a 13 March 2000, *Daphnia magna* 48-Hour Acute Toxicity Test and two (2) copies of the Toxicity Test Report containing results of a 13 March 2000, 96-Hour Acute *Pimephales promelas* Toxicity Test, both performed on a sample of the City of Plainwell WWTP Outfall 001 effluent. For your convenience, the second copy is enclosed for regulatory submittal. If you have any questions concerning these reports or if I can be of any further assistance to you, please feel free to telephone me at (616) 738-7308.

Sincerely,



Bruce A. Rabe  
Manager, Aquatic Toxicology Laboratory

BAR:rmv  
Enclosure: Whole Effluent Toxicity Test Reports  
cc: File



WHOLE EFFLUENT TOXICITY TEST REPORT

City of Plainwell WWTP

*Daphnia magna* 48-Hour Definitive  
Toxicity Test  
*Outfall 001*

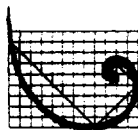
Testing Period: March 13 - March 15, 2000

**Dell Engineering, Inc.**

A member of the ERM Group

3352 128<sup>th</sup> Avenue

Holland, Michigan 49424-9263



**ERM.**

# TEST OVERVIEW

Permittee:	City of Plainwell WWTP	Laboratory:	Dell Engineering, Inc.
Location:	129 Fairlane Street	Location:	3352 128th Avenue
	Plainwell, Michigan 49080-1272		Holland, Michigan 49424-9263
Contact:	Mr. Bryan Pond	Lab Contact:	Mr. Bruce Rabe
Telephone #:	616-685-5158	Telephone #:	616-399-3500

NPDES Permit #: MI0020494

Test/Method: *Daphnia magna* 48-Hour Definitive Toxicity Test, EPA/600/4-90/027F

Test Sample:	Outfall 001	Receiving Water:	Kalamazoo River
Sample Date:	03/13/00	Sample Date:	N/A
Lab Sample I.D.:	031300-1	Lab Sample I.D.:	N/A

Test Initiation Date:	03/13/00	Report Date:	03/30/00
-----------------------	----------	--------------	----------

Permit Requirements: Monitor Only

Result Summary: See Table Below

TEST ENDPOINT	CONCENTRATIONS (% EFFLUENT)							
	Control	6.25	12.5	25	50	100	48-Hr LC <sub>50</sub>	TUa
% Survival	100	100	100	100	100	100	>100%	0
Acute Toxicity Unit (TUa) (100/48-Hr LC <sub>50</sub> *)								

\* For 48-Hour LC<sub>50</sub> values >100%, see report text for calculation of TUa.

Test Conclusion: The City of Plainwell WWTP Outfall 001 effluent did not elicit any measurable acute toxicity.



Bruce A. Rabe  
Manager, Aquatic  
Toxicology Laboratory  
Dell Engineering Project No. CH101.00

Dell Engineering, Inc.  
3352 128th Avenue  
Holland, Michigan 49424-9263  
Phone: (616) 399-3500  
FAX: (616) 399-3777



## 1.0 INTRODUCTION

A sample of the City of Plainwell WWTP composited Outfall 001 effluent was received by Dell Engineering, Inc., a member of the ERM Group (Dell/ERM), on 13 March 2000 (see Appendix A for Chain-of-Custody form). The requested test was a 48-Hour Definitive Test using *Daphnia magna*.

## 2.0 METHODS

Upon sample receipt, each sample was analyzed for temperature, pH, conductivity, hardness, alkalinity, total ammonia, and total residual chlorine (Table 1). All samples were maintained at  $4 \pm 2$  degrees Celsius ( $^{\circ}\text{C}$ ) until needed for testing.

The following effluent concentrations were established for testing: 6.25%, 12.5%, 25%, 50%, 100%, and a control solution. All test solutions were prepared by mixing appropriate volumes of dilution water and effluent in the test containers. Dilution water consisted of reconstituted moderately hard water. Control water consisted of 100 % dilution water.

*Daphnia magna* used to initiate this test were obtained from in-house cultures and were <24 hours old at test initiation. Test organisms were released in 100% control water (reconstituted moderately hard water) prior to test initiation.

The 48-Hour Definitive Test was conducted using 30-milliliter (mL) disposable polystyrene containers containing 25 mL of control water or appropriate test solution. Five test organisms were randomly introduced into each test chamber with four replicate chambers per treatment. A fifth replicate was prepared without test organisms and maintained for water chemistry purposes only. Organisms were not fed during test. Organism survival was determined daily by enumerating live *Daphnia magna* in each test chamber. Survival was defined as any body or appendage movement.

The test was conducted at a temperature of  $25 \pm 1$   $^{\circ}\text{C}$  under fluorescent lighting on a photoperiod of 16 hours light and 8 hours dark. Water quality measurements were performed on all control and test solutions prior to test initiation and on selected treatments daily thereafter, as indicated in Table 2.

Following termination of the 48-Hour Definitive Test, a 48-hour  $LC_{50}$  and corresponding 95% confidence limits were calculated, where possible. The  $LC_{50}$  value estimate was determined by using one of the following statistical methods: graphical, Spearman-Kärber, Trimmed Spearman-Kärber or Probit. The method selected for reporting test results was determined by the characteristics of the data; that is, the presence or absence of 0% and 100% mortality and the number of concentrations in which mortalities between 0% and 100% occurred. All statistical analyses were performed using the Toxstat Version 3.4 software program.

For reporting purposes, the 48-hour  $LC_{50}$  value was converted to an acute toxic unit (TUa). For 48-hour  $LC_{50}$  values  $>100\%$ , the TUa was derived as follows: (1) if mortality in 100% effluent was 0% to 10%, the TUa was reported as 0, (2) if mortality in 100% effluent was 11% to 49%, the TUa was calculated and reported as  $0.02 \times$  percent mortality in 100% effluent.

The reference toxicant, sodium chloride, was used to monitor the sensitivity of the test organisms and the precision of the testing procedure. Acute reference toxicant tests are performed at least monthly and the resulting  $LC_{50}$  values are plotted to determine if the results are within prescribed limits (see Appendix B). If the  $LC_{50}$  of a particular reference toxicant test does not fall within the expected range of  $\pm 2$  standard deviations from the mean for a given test organism, the sensitivity of that organism and the overall credibility of the test system is suspect.

### 3.0

## RESULTS

After 48 hours of exposure, percent survival of *Daphnia magna* was 100% in the series of effluent concentrations tested; control survival was also 100% (Table 2). Based on this data set, the 48-hour  $LC_{50}$  was  $>100\%$ . The 95% confidence limits could not be calculated because no median effect was observed. In accordance with this data interpretation, the City of Plainwell WWTP Outfall 001 effluent exhibited a TUa of 0.

A copy of the MDEQ reporting form is included in Appendix C.

**Daphnia Magna - Acute Toxicity Test**  
**Initial Water Quality and Test Solution Preparation**

Permittee/Client:	City of Plainwell WWTP	Control/Dilution Water:	RMHW
Effluent/Location:	001	Organism Batch #:	17-00
Lab I.D.#:	031300-1	QC Review:	BAR
Beginning Date:	03/13/00	QC Review Date:	03/17/00
Ending Date:	03/15/00		

Initial Water Quality:

Parameter	Units	Effluent		Receiving Water		Synthetic Water	
Sample #	--	1	2	--	--	--	--
Lab I.D.#/ Batch #	--	031300-1	--	--	--	18-00	--
Temperature	° C	6	--	--	--	--	--
pH	S.U.	7.7	--	--	--	8.0	--
Conductivity	umhos/cm	1627	--	--	--	346	--
Alkalinity	mg / L CaCO3	220	--	--	--	76	--
Hardness	mg / L CaCO3	310	--	--	--	88	--
Total Ammonia	mg / L NH3	3.7	--	--	--	--	--
Total Residual Chlorine	mg / L Cl2	<0.01	--	--	--	--	--
Total mls of Sodium Thiosulfate added per liter	mg / L	--	--	--	--	--	--
Initials	--	KPM/MAG		--	--	KPM	

Test Solution Preparation:

Treatment (% Effluent)	Effluent ( mL )	Dilution ( mL )	Test Day	Initials	Effluent Sample #	Receiving Sample #	Synthetic Batch #
Control	0	1200	0	KPM	1	--	18-00
6.25%	75	1125	1	CMI	--	--	--
12.5%	150	1050	2	KPM	--	--	--
25%	300	900					
50%	600	600					
100%	1200	0					

Note: Test solutions prepared for both test species

Meter Key:

(1) Orion D.O. Model 810 Serial #: 001319	(1) Orion pH Model 290A Serial #: 005846	(1) Orion Cond. Model 115 Serial #: 1086
(2) Orion D.O. Model 810 Serial #: 001323	(2) Orion pH Model 290A Serial #: 005844	(2) Orion Cond. Model 115 Serial #: 001977
(3) Orion D.O. Model 835 Serial #: 64428009		

Note: D.O. meter also used for temperature measurement unless otherwise noted.

Comment Section:

Date	Initials	Comments

Permittee/Client: City of Plainwell WWTP

Effluent/Location: 001

Lab I.D #: 031300-1

Beginning Date: 03/13/00

Ending Date: 03/15/00

Time: 1200

Time: 1100

Control/Dilution Water: RMHW

Organism Batch: 17-00

QC Review: BAR

QC Review Date: 03/17/00

Treatment (% Effluent)	Rep.	# Live Organisms Day			Rep.	# Live Organisms Day			Survival Data Summary		
		0	1	2		0	1	2	Total Live		Survival (Percent)
									Initial	Final	
Control	A	5	5	5	B	5	5	5	20	20	100
6.25%	A	5	5	5	B	5	5	5	20	20	100
12.5%	A	5	5	5	B	5	5	5	20	20	100
25%	A	5	5	5	B	5	5	5	20	20	100
50%	A	5	5	5	B	5	5	5	20	20	100
100%	A	5	5	5	B	5	5	5	20	20	100
	A				B						

Treatment (% Effluent)	Rep.	# Live Organisms Day			Rep.	# Live Organisms Day			Test Day	Observation Time	Initials
		0	1	2		0	1	2			
Control	C	5	5	5	D	5	5	5	0	1200	KPM
6.25%	C	5	5	5	D	5	5	5	1	1200	CMI
12.5%	C	5	5	5	D	5	5	5	2	1100	KPM
25%	C	5	5	5	D	5	5	5			
50%	C	5	5	5	D	5	5	5			
100%	C	5	5	5	D	5	5	5			
	C				D						

	Dissolved Oxygen (mg/L) Day			pH (S.U.) Day		
Meter #	3	3	3	2	2	2
Treatment (% Effluent)	0	1	2	0	1	2
Control	8.2	8.0	7.8	8.1	8.1	7.9
6.25%	8.2	8.1	7.8	--	8.2	8.1
12.5%	8.2	8.1	7.8	--	8.3	8.1
25%	8.2	8.0	7.8	--	8.3	8.2
50%	8.3	8.0	7.9	--	8.4	8.3
100%	8.4	7.9	7.9	7.9	8.5	8.5

	Conductivity (umhos/cm) Day			Temperature (C) Day		
Meter #	2	--	2	3	3	3
Treatment (% Effluent)	0	1	2	0	1	2
Control	358	--	344	25	24	24
6.25%	436	--	439	25	24	24
12.5%	518	--	535	25	24	24
25%	686	--	701	25	24	24
50%	1002	--	1052	25	24	24
100%	1621	--	1773	25	24	24

*Appendix A*  
*Chain Of Custody Form*



DELL ENGINEERING, INC.  
Civil Engineering • Environmental Consulting

3352 128<sup>th</sup> Avenue, Holland, Michigan 49424-9263  
Phone 616-399-3500 FAX 616-399-3777

## AQUATIC TOXICITY LAB CHAIN OF CUSTODY FORM\*

CLIENT NAME:	City of Plainwell			SAMPLER NAME:	B. Paul / P. Ennoes	
ADDRESS:	129 Fairlane Plainwell MI 49080			PHONE NUMBER:	616 - 685 - 5153	
SAMPLE ID NUMBER (filled in by Dell)	SAMPLE DESCRIPTION	DATE	TIME	GRAB OR COMP	NUMBER AND SIZE OF CONTAINERS	SAMPLE TEMP. UPON RECEIPT (filled in by Dell)
031300-1	Effluent	3-12-00 3-13-00	7am 7am	24HC	1-2.5	6° / DC 9.6

**ANALYSES REQUESTED [check item(s)]**

<input checked="" type="checkbox"/> <i>Daphnia magna</i> Acute	<input type="checkbox"/> <i>Ceriodaphnia dubia</i> Chronic	<input type="checkbox"/> <i>Daphnia magna</i> Chronic
<input checked="" type="checkbox"/> <i>Ceriodaphnia dubia</i> Acute	<input checked="" type="checkbox"/> Fathead minnow Chronic	
<input type="checkbox"/> Fathead minnow Acute	<input type="checkbox"/> Other _____	

COMMENT SECTION:

### SAMPLE TRANSFERS

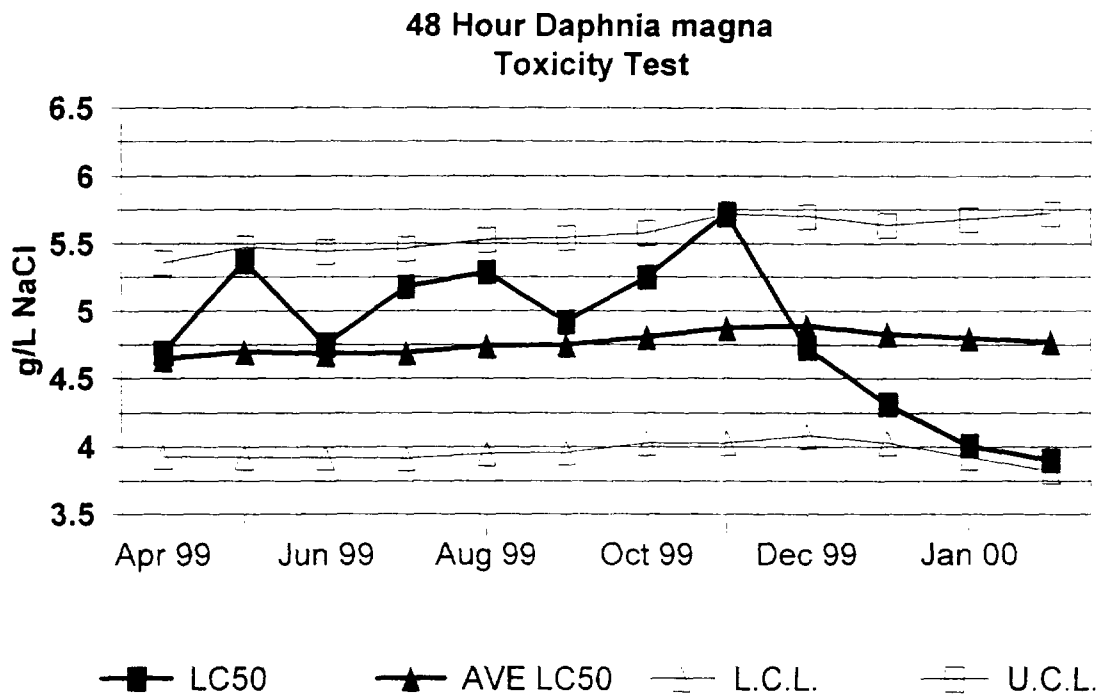
RELINQUISHED BY Name / Organization	DATE	TIME	ACCEPTED BY Name / Organization	DATE	TIME
Paul Ennoes City of Plainwell	3/13/00	8:25	J. M. G. / Dell	3/13/00	8:25

\* See Instructions for Sample Collection on Back of Sheet

*Appendix B*  
*Acute Reference Toxicant Test Data*

# DELL ENGINEERING, INC.

## Standard Reference Toxicant Data



**48 Hour Daphnia magna Toxicity Test Data**

DATE	LC50 (g/L NaCl)	95% CONFIDENCE		METHOD	AVE LC50 (g/L NaCl)	CONTROL LIMIT	
		(lower)	(upper)			(lower)	(upper)
Apr 99	4.69	4.45	4.94	P	4.65	3.93	5.36
May 99	5.37	4.91	5.83	P	4.70	3.92	5.47
Jun 99	4.75	4.25	5.24	SK	4.68	3.92	5.44
Jul 99	5.18	4.91	5.45	P	4.69	3.92	5.46
Aug 99	5.29	5.02	5.57	P	4.74	3.95	5.53
Sep 99	4.92	4.53	5.32	SK	4.75	3.96	5.54
Oct 99	5.25	4.76	5.73	TSK	4.80	4.03	5.58
Nov 99	5.72	5.41	6.03	TSK	4.87	4.03	5.71
Dec 99	4.73	4.52	4.93	TSK	4.89	4.08	5.70
Jan 00	4.31	4.08	4.53	TSK	4.83	4.03	5.64
Feb 00	4.01	3.76	4.27	P	4.80	3.92	5.68
Mar 00	3.90	3.76	4.03	SK	4.77	3.82	5.72



*Appendix C*  
*MDEQ Reporting Form*



## MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY - SURFACE WATER QUALITY DIVISION

**ACUTE TOXICITY TEST REPORT**

By authority of PA 451 of 1994, as amended. Completion of this form is voluntary.

**INSTRUCTIONS:** Use this form to report acute toxicity test results. Use separate forms for more than 1 test. Attach all raw data sheets to this report.

1. NAME OF FACILITY (on NPDES permit) City of Plainwell			2. NPDES PERMIT # M   1   0   0   2   0   4   9   4					
3. RECEIVING WATER (as designated in permit) Kalamazoo River			4. OUTFALL 001			5. RECEIVING WATER CONCENTRATION (if known) Unknown		
6. TEST LAB (Name and Address) Dell Engineering, Inc. 3352 128 <sup>th</sup> Avenue Holland, MI 49424-9263						7. AGE RANGE OF ORGANISMS AT TEST START  < 24 hours old		
8. TEST START DATE 03/13/00		9. TEST END DATE 03/15/00		10. TEST SPECIES <i>Daphnia magna</i>		11. REPORT DATE 03/30/00		
12. NAME OF PERSON CONDUCTING TEST Katy Moore, Colleen Iversen				13. NAME/PHONE # OF PERSON WHO CAN ANSWER QUESTIONS ABOUT THIS REPORT Bruce Rabe (616) 738 - 7308				
14. SAMPLE COLLECTION DATES Sample 1: 03/13/00 Sample 2: N/A		15. DATE RECEIVED Sample 1: 03/13/00 Sample 2: N/A		16. ARRIVAL TEMP (C°) Sample 1: 6 Sample 2: N/A				
17. DATE OF FIRST USE Sample 1: 03/13/00 Sample 2: N/A		18. TOTAL RESIDUAL CHLORINE (in mg/l) Sample 1: <0.01 Sample 2: N/A		19. WAS SAMPLE DECHLORINATED? (If yes, include details with raw data sheets) Sample 1: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO Sample 2: <input type="checkbox"/> YES <input type="checkbox"/> NO				
20. ARRIVAL pH (in S.U.) Sample 1: 7.7 Sample 2: N/A		21. ARRIVAL DISSOLVED OXYGEN (in mg/l) Sample 1: 9.6 Sample 2: N/A		22. AMMONIA (mg/l as N) Sample 1: 3.7 Sample 2: N/A				
23. TEST METHOD USED (If SOP's are cited, any deviations from EPA protocol must be stated)  Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, EPA/600/4-90/027F								
24. DESCRIBE ANY DEVIATIONS FROM TEST METHODS (For example, pH-controlled test, reduced DO levels in test leading to aeration, sample exceeded holding time. Attach a separate sheet if necessary.)  N/A								
25. SOURCE OF TEST ORGANISMS In-house cultures								
26. WERE ORGANISMS FED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF YES ➡			27. NAME FOOD AND FEEDING FREQUENCY N/A			28. # OF REPLICATES/CONCENTRATION 4		
29. # OF ORGANISMS/REPLICATE 5			30. WAS THE EFFLUENT FILTERED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF YES ➡			31. STATE MESH SIZE OF FILTER N/A		
32. EFFLUENT SAMPLE TYPE (check one type for each sample) Sample 1: <input checked="" type="checkbox"/> 24-HR COMPOSITE <input type="checkbox"/> GRAB/COMPOSITE (give # of grabs) <input type="checkbox"/> GRAB SAMPLE Sample 2: <input type="checkbox"/> 24-HR COMPOSITE <input type="checkbox"/> GRAB/COMPOSITE (give # of grabs) <input type="checkbox"/> GRAB SAMPLE						33. IDENTIFY THE DILUENT (O <sub>1</sub> ) CONTROL RMHW  IDENTIFY THE SECONDARY (O <sub>2</sub> ) CONTROL N/A		
34. SUMMARY OF RESULTS - PERCENT MORTALITY PER CONCENTRATION								
	CONTROLS		EFFLUENT CONCENTRATIONS					
DAY	O <sub>1</sub>	O <sub>2</sub>	6.25%	12.5%	25%	50%	100%	%
1	0	N/A	0	0	0	0	0	
2	0	N/A	0	0	0	0	0	
35. 48-HOUR LC <sub>50</sub> (for <i>Daphnia magna</i> or <i>Ceriodaphnia dubia</i> acute tests) >100%			36. 96-HOUR LC <sub>50</sub> (for fathead minnow acute tests) N/A			37. TU <sub>a</sub> (acute toxic units - 100/LC <sub>50</sub> ) 0		

Send this report and attachments to the Surface Water Quality Division District Office corresponding to the location at which the sample was taken. EQP 5818 (5/97)

City of Plainwell WWTP

*Pimephales promelas* 96-Hour  
Definitive Toxicity Test  
*Outfall 001*

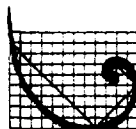
Testing Period: March 13 - March 17, 2000

**Dell Engineering, Inc.**

A member of the ERM Group

3352 128<sup>th</sup> Avenue

Holland, Michigan 49424-9263



**ERM.**

# TEST OVERVIEW

Permittee:	City of Plainwell WWTP	Laboratory:	Dell Engineering, Inc.
Location:	129 Fairlane Street	Location:	3352 128th Avenue
	Plainwell, Michigan 49080-1272		Holland, Michigan 49424-9263
Contact:	Mr. Bryan Pond	Lab Contact:	Mr. Bruce Rabe
Telephone #:	616-685-5158	Telephone #:	616-399-3500

NPDES Permit #: MI0020494

Test/Method: *Pimephales promelas* 96-Hour Definitive Toxicity Test, EPA/600/4-90/027F

Test Sample:	Outfall 001	Receiving Water:	Kalamazoo River
Sample Dates:	03/13/00	Sample Date:	N/A
Lab Sample I.D.s:	031300-1	Lab Sample I.D.s:	N/A

Test Initiation Date:	03/13/00	Report Date:	03/30/00
-----------------------	----------	--------------	----------

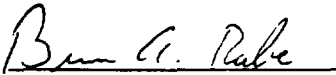
Permit Requirements: Monitor Only

Result Summary: See Table Below

TEST ENDPOINT	CONCENTRATIONS (% EFFLUENT)							
	Control	6.25	12.5	25	50	100	96-Hr LC <sub>50</sub>	TUa
% Survival	100	100	100	100	100	100	>100%	0
Acute Toxicity Unit (TUa) (100/96-Hr LC <sub>50</sub> )								

\* For 96-Hour LC<sub>50</sub> values >100%, see report text for calculation of TUa.

Test Conclusion: The City of Plainwell WWTP Outfall 001 effluent did not elicit any measurable acute toxicity.

  
Bruce A. Rabe  
Manager, Aquatic  
Toxicology Laboratory  
Dell Engineering Project No. CH101.00

Dell Engineering, Inc.  
3352 128th Avenue  
Holland, Michigan 49424-9263  
Phone: (616) 399-3500  
FAX: (616) 399-3777

## 1.0 INTRODUCTION

A sample of the City of Plainwell WWTP composited Outfall 001 effluent was received by Dell Engineering, Inc., a member of the ERM Group (Dell/ERM), on 13 March 2000 (see Appendix A for Chain-of-Custody forms). The requested test was a 96-Hour Definitive Test using *Pimephales promelas*.

## 2.0 METHODS

Upon sample receipt, the effluent sample was analyzed for temperature, pH, conductivity, hardness, alkalinity, total ammonia, and total residual chlorine (Table 1). A portion of the effluent sample used for test initiation was warmed to test temperature. The remaining sample was maintained at 4 degrees Celsius (°C) until use for test solution renewal on day 2.

The following effluent concentrations were established for testing: 6.25%, 12.5%, 25%, 50%, 100%, and a control solution. All test solutions were prepared by mixing appropriate volumes of dilution water and effluent in the test containers. Dilution water consisted of reconstituted moderately hard water. Control water consisted of 100 percent dilution water.

*Pimephales promelas* used to initiate this test were obtained from in-house cultures, and were 9 days old at test initiation. Test organisms were maintained in 100 percent control water (reconstituted moderately hard water) prior to test initiation.

The 96-Hour Definitive Test was conducted using 500-milliliter (ml) disposable polypropylene containers containing 250 ml of control water or appropriate test solution. Ten test organisms were randomly introduced into each test chamber with four replicate chambers per treatment. *Pimephales promelas* were fed 0.1 ml of a concentrated suspension of < 24-hour old live brine shrimp nauplii (*Artemia* sp.) several hours prior to the 48-hour testing period. At the 48-hour testing period test solutions were renewed by replacing approximately 90 percent of the old solution with fresh control water or appropriate test solution. Prior to renewal of test solutions, uneaten and dead brine shrimp, along with other debris, were removed from the bottom of the test chambers. Organism survival was determined daily by enumerating live *Pimephales promelas* in each test chamber. Survival was defined as any body movement after gentle prodding.

The test was conducted at a temperature of  $25 \pm 1$  °C under fluorescent lighting on a photoperiod of 16 hours light and 8 hours dark. Water quality measurements were performed on all control and test solutions prior to test initiation and on selected treatments daily thereafter, as indicated in Table 2.

Following termination of the 96-Hour Definitive Test, a 96-hour  $LC_{50}$  and corresponding 95 percent confidence limits were calculated, where possible. The  $LC_{50}$  value estimate was determined by using one of the following statistical methods: graphical, Spearman-Kärber, Trimmed Spearman-Kärber or Probit. The method selected for reporting test results was determined by the characteristics of the data; that is, the presence or absence of 0 and 100 percent mortality and the number of concentrations in which mortalities between 0 and 100 percent occurred.

For reporting purposes, the 96-hour  $LC_{50}$  value was converted to an acute toxic unit (TUa). For 96-hour  $LC_{50}$  values  $>100\%$ , the TUa was derived as follows: (1) if mortality in 100% effluent was 0% to 10%, the TUa was reported as 0, (2) if mortality in 100% effluent was 11% to 49%, the TUa was calculated and reported as  $0.02 \times$  percent mortality in 100% effluent. All statistical analyses were performed using the Toxstat Version 3.4 software program.

The reference toxicant, sodium chloride, was used to monitor the sensitivity of the test organisms and the precision of the testing procedure. Acute reference toxicant tests are performed at least monthly and the resulting  $LC_{50}$  values are plotted to determine if the results are within prescribed limits (see Appendix B). If the  $LC_{50}$  of a particular reference toxicant test does not fall within the expected range of  $\pm 2$  standard deviations from the mean for a given test organism, the sensitivity of that organism and the overall credibility of the test system is suspect.

### 3.0

## RESULTS

After 96 hours of exposure, percent survival of *Pimephales promelas* was 100% in the series of effluent concentrations tested; control survival was also 100% (Table 2). Based on this data set, the 96-hour  $LC_{50}$  was  $>100\%$ . The 95% percent confidence limits could not be calculated because no median effect was observed. None of the treatments (including 100%) caused mortality to  $\geq 50\%$  of the exposed test organisms. Based on the *Pimephales promelas* 96-hour exposure, the City of Plainwell WWTP Outfall 001 effluent exhibited a TUa of 0.

A copy of the MDEQ reporting form is included in Appendix C.

***Pimephales promelas* - Acute Toxicity Test**  
**Initial Water Quality and Test Solution Preparation**

Permittee/Client:	City of Plainwell WWTP	Control/Dilution Water:	RMHW
Effluent/Location:	001	Organism Batch #:	33-00
Lab I.D.#:	031300-1	QC Review:	BAR
Beginning Date:	03/13/00	Time:	1130
Ending Date:	03/17/00	Time:	1030
		QC Review Date:	03/17/00

Initial Water Quality:

Parameter	Units	Effluent		Receiving Water		Synthetic Water	
Sample #	--	1	2	--	--	--	--
Lab I.D.#/ Batch #	--	031300-1	--	--	--	18-00	--
Temperature	° C	6	--	--	--	--	--
pH	S.U.	7.7	--	--	--	8.0	--
Conductivity	umhos/cm	1627	--	--	--	346	--
Alkalinity	mg / L CaCO3	220	--	--	--	76	--
Hardness	mg / L CaCO3	310	--	--	--	88	--
Total Ammonia	mg / L NH3	3.7	--	--	--	--	--
Total Residual Chlorine	mg / L Cl2	<0.01	--	--	--	--	--
Total mls of Sodium Thiosulfate added per liter	mg / L	--	--	--	--	--	--
Initials	--	KPM/MAG		--	--	KPM	

Test Solution Preparation:

Treatment (% Effluent)	Effluent ( mL )	Dilution ( mL )	Test Day	Initials	Effluent Sample #	Receiving Sample #	Synthetic Batch #
Control	0	1200	0	KPM	1	--	18-00
6.25%	75	1125	1	CMI	--	--	--
12.5%	150	1050	2	KPM	1	--	18-00
25%	300	900	3	KPM	--	--	--
50%	600	600	4	KPM	--	--	--
100%	1200	0					

Note: Test solutions prepared for both test species

Meter Key:

(1) Orion D.O. Model 810 Serial #: 001319	(1) Orion pH Model 290A Serial #: 005846	(1) Orion Cond. Model 115 Serial #: 1086
(2) Orion D.O. Model 810 Serial #: 001323	(2) Orion pH Model 290A Serial #: 005844	(2) Orion Cond. Model 115 Serial #001977
(3) Orion D.O. Model 835 Serial #: 64428009		

Note: D.O. meter also used for temperature measurement unless otherwise noted.

Comment Section:

Date	Initials	Comments

Permittee/Client: City of Plainwell WWTP

Effluent/Location: 001

Lab I.D.#: 031300-1

Beginning Date: 03/13/00

Ending Date: 03/17/00

Time: 1130

Time: 1030

Control/Dilution Water: RMHW

Organism Batch: 33-00

QC Review: BAR

QC Review Date: 03/17/00

Treatment (% Effluent)	Rep.	# Live Organisms					Rep.	# Live Organisms					Survival Data Summary		
		Day						Day					Total Live		Survival (Percent)
		0	1	2	3	4		0	1	2	3	4	Initial	Final	
Control	A	10	10	10	10	10	B	10	10	10	10	10	40	40	100
6.25%	A	10	10	10	10	10	B	10	10	10	10	10	40	40	100
12.5%	A	10	10	10	10	10	B	10	10	10	10	10	40	40	100
25%	A	10	10	10	10	10	B	10	10	10	10	10	40	40	100
50%	A	10	10	10	10	10	B	10	10	10	10	10	40	40	100
100%	A	10	10	10	10	10	B	10	10	10	10	10	40	40	100
	A						B								

Treatment (% Effluent)	Rep.	# Live Organisms					Rep.	# Live Organisms					Test Day	Observation Time	Initials
		Day						Day							
		0	1	2	3	4		0	1	2	3	4			
Control	C	10	10	10	10	10	D	10	10	10	10	10	0	1130	JW
6.25%	C	10	10	10	10	10	D	10	10	10	10	10	1	1130	CMI
12.5%	C	10	10	10	10	10	D	10	10	10	10	10	2	1030	KPM
25%	C	10	10	10	10	10	D	10	10	10	10	10	3	1030	KPM
50%	C	10	10	10	10	10	D	10	10	10	10	10	4	1030	KPM
100%	C	10	10	10	10	10	D	10	10	10	10	10			
	C						D								

	Dissolved Oxygen (mg/L)							pH (S.U.)								
	Day							Day								
	Meter #	3	3	--	3	3	3	--	3	2	2	--	2	2	2	--
Treatment (% Effluent)	0	1		2		3	4	0	1		2		3		4	
	I	F	I	F	I	F	I	F	I	F	I	F	I	F	I	F
Control	8.2	7.9	--	7.6	8.1	7.8	--	7.9	8.1	8.0	--	7.9	8.1	7.9	--	8.1
6.25%	8.2	7.9	--	7.6	8.1	7.6	--	8.0	--	8.1	--	8.1	--	8.0	--	8.0
12.5%	8.2	7.7	--	7.6	8.1	7.7	--	7.9	--	8.2	--	8.2	--	8.1	--	8.0
25%	8.2	7.8	--	7.4	8.1	7.7	--	7.8	--	8.2	--	8.2	--	8.2	--	8.1
50%	8.3	7.7	--	7.4	8.2	7.4	--	7.5	--	8.3	--	8.3	--	8.3	--	8.2
100%	8.4	7.3	--	7.0	8.3	7.4	--	7.2	7.9	8.4	--	8.4	7.7	8.3	--	8.3

	Conductivity (umhos/cm)							Temperature (° C)								
	Day							Day								
	Meter #	2	2	--	2	2	2	--	2	3	3	--	3	3	3	--
Treatment (% Effluent)	0	1		2		3	4	0	1		2		3		4	
	I	F	I	F	I	F	I	F	I	F	I	F	I	F	I	F
Control	358	346	--	352	349	351	--	376	25	24	--	24	25	25	--	24
6.25%	436	434	--	433	428	435	--	459	25	24	--	24	25	25	--	24
12.5%	518	510	--	512	500	514	--	547	25	24	--	24	26	25	--	24
25%	686	663	--	673	673	668	--	708	25	24	--	24	26	25	--	24
50%	1002	947	--	981	998	978	--	998	25	24	--	24	26	25	--	24
100%	1621	1573	--	1603	1610	1562	--	1627	25	24	--	24	26	25	--	24

I = Initial Chemistry

F = Final Chemistry



*Appendix A*  
*Chain of Custody Forms*



**DELL ENGINEERING, INC.**  
Civil Engineering • Environmental Consulting

3352 128<sup>th</sup> Avenue, Holland, Michigan 49424-9263  
Phone: 616-399-3500 FAX: 616-399-3777

## AQUATIC TOXICITY LAB CHAIN OF CUSTODY FORM\*

CLIENT NAME:	City of Plainwell			SAMPLER NAME:	B. Paul / P. Ennoes	
ADDRESS:	129 Fairlane Plainwell MI 49080			PHONE NUMBER:	616-685-5153	
SAMPLE ID NUMBER (filled in by Dell)	SAMPLE DESCRIPTION	DATE	TIME	GRAB OR COMP	NUMBER AND SIZE OF CONTAINERS	SAMPLE TEMP. UPON RECEIPT (filled in by Dell)
031300-1	Effluent	3-12-00 3-13-00	7am 7m	24HC	1-2.5	6° / DC 9.6

**ANALYSES REQUESTED [check item(s)]**

<input checked="" type="checkbox"/> Daphnia magna Acute	<input type="checkbox"/> Ceriodaphnia dubia Chronic	<input type="checkbox"/> Daphnia magna Chronic
<input checked="" type="checkbox"/> <sup>KPM</sup> Ceriodaphnia dubia Acute	<input checked="" type="checkbox"/> Fathead minnow Chronic	
<input type="checkbox"/> Fathead minnow Acute	<input type="checkbox"/> Other _____	

COMMENT SECTION:

### SAMPLE TRANSFERS

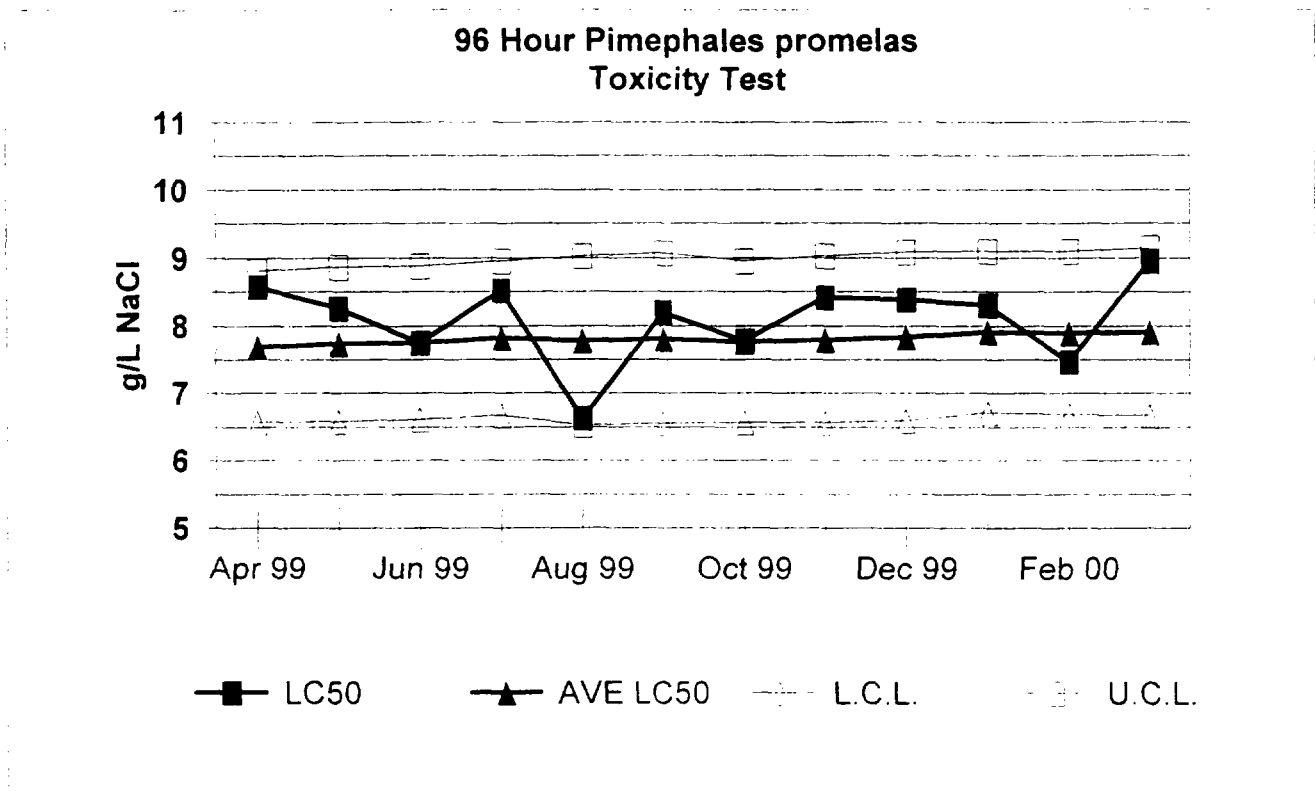
RELINQUISHED BY Name / Organization	DATE	TIME	ACCEPTED BY Name / Organization	DATE	TIME
Paul Ennoes City of Plainwell	3/13/00	8:25	John A. Hall / Dell	3/13/00	8:25

\* See Instructions for Sample Collection on Back of Sheet

*Appendix B*  
*Acute Reference Toxicant Test Data*

# DELL ENGINEERING. INC.

## Standard Reference Toxicant Data



**96 Hour Pimephales promelas Toxicity Test Data**

DATE	LC50 (g/L NaCl)	95% CONFIDENCE		METHOD	AVE LC50 (g/L NaCl)	CONTROL LIMIT	
		(lower)	(upper)			(lower)	(upper)
Apr 99	8.57	8.39	8.75	TSK	7.69	6.57	8.81
May 99	8.26	8.03	8.48	SK	7.73	6.58	8.87
Jun 99	7.74	7.32	8.15	SK	7.75	6.62	8.88
Jul 99	8.51	8.12	8.91	TSK	7.81	6.67	8.96
Aug 99	6.63	5.49	7.77	TSK	7.77	6.53	9.02
Sep 99	8.20	7.86	8.55	P	7.81	6.55	9.06
Oct 99	7.78	7.50	8.05	SK	7.76	6.57	8.95
Nov 99	8.41	8.12	8.70	P	7.79	6.57	9.02
Dec 99	8.39	8.19	8.58	SK	7.84	6.60	9.08
Jan 00	8.30	8.08	8.52	SK	7.91	6.72	9.10
Feb 00	7.47	7.23	7.72	P	7.89	6.69	9.10
Mar 00	8.95	8.65	9.24	P	7.91	6.67	9.15

*Appendix C*  
*MDEQ Reporting Form*



## MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY - SURFACE WATER QUALITY DIVISION

## ACUTE TOXICITY TEST REPORT

By authority of PA 451 of 1994, as amended. Completion of this form is voluntary.

INSTRUCTIONS: Use this form to report acute toxicity test results. Use separate forms for more than 1 test. Attach all raw data sheets to this report.

1. NAME OF FACILITY (on NPDES permit) City of Plainwell WWTP			2. NPDES PERMIT # M   1   0   0   2   0   4   9   4					
3. RECEIVING WATER (as designated in permit) Kalamazoo River			4. OUTFALL 001			5. RECEIVING WATER CONCENTRATION (if known) Unknown		
6. TEST LAB (Name and Address) Dell Engineering, Inc. 3352 128 <sup>th</sup> Avenue Holland, MI 49424-9263						7. AGE RANGE OF ORGANISMS AT TEST START 9 days old		
8. TEST START DATE 03/13/00		9. TEST END DATE 03/17/00		10. TEST SPECIES <i>Pimephales promelas</i>		11. REPORT DATE 03/30/00		
12. NAME OF PERSON CONDUCTING TEST Jeff Williams, Colleen Iversen, Bruce Rabe, Katy Moore				13. NAME/PHONE # OF PERSON WHO CAN ANSWER QUESTIONS ABOUT THIS REPORT Bruce Rabe (616) 738-7308				
14. SAMPLE COLLECTION DATES Sample 1: 03/13/00 Sample 2: N/A		15. DATE RECEIVED Sample 1: 03/13/00 Sample 2: N/A		16. ARRIVAL TEMP (C°) Sample 1: 6 Sample 2: N/A				
17. DATE OF FIRST USE Sample 1: 03/13/00 Sample 2: N/A		18. TOTAL RESIDUAL CHLORINE (in mg/l) Sample 1: <0.01 Sample 2: N/A		19. WAS SAMPLE DECHLORINATED? (If yes, include details with raw data sheets) Sample 1: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO Sample 2: <input type="checkbox"/> YES <input type="checkbox"/> NO				
20. ARRIVAL pH (in S.U.) Sample 1: 7.7 Sample 2: N/A		21. ARRIVAL DISSOLVED OXYGEN (in mg/l) Sample 1: 9.6 Sample 2: N/A		22. AMMONIA (mg/l as N) Sample 1: 3.7 Sample 2: N/A				
23. TEST METHOD USED (If SOP's are cited, any deviations from EPA protocol must be stated) Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, EPA/600/4-90/027F								
24. DESCRIBE ANY DEVIATIONS FROM TEST METHODS (For example, pH-controlled test, reduced DO levels in test leading to aeration, sample exceeded holding time. Attach a separate sheet if necessary.) N/A								
25. SOURCE OF TEST ORGANISMS In-house cultures								
26. WERE ORGANISMS FED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES ➡			27. NAME FOOD AND FEEDING FREQUENCY < 24 hr <i>Artemia</i> sp. at the 48-hour testing period			28. # OF REPLICATES/CONCENTRATION 4		
29. # OF ORGANISMS/REPLICATE 10			30. WAS THE EFFLUENT FILTERED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF YES ➡			31. STATE MESH SIZE OF FILTER N/A		
32. EFFLUENT SAMPLE TYPE (check one type for each sample) Sample 1: <input checked="" type="checkbox"/> 24-HR COMPOSITE <input type="checkbox"/> GRAB/COMPOSITE (give # of grabs) <input type="checkbox"/> GRAB SAMPLE Sample 2: <input type="checkbox"/> 24-HR COMPOSITE <input type="checkbox"/> GRAB/COMPOSITE (give # of grabs) <input type="checkbox"/> GRAB SAMPLE						33. IDENTIFY THE DILUENT (O <sub>1</sub> ) CONTROL RMHW  IDENTIFY THE SECONDARY (O <sub>2</sub> ) CONTROL N/A		
34. SUMMARY OF RESULTS - PERCENT MORTALITY PER CONCENTRATION								
	CONTROLS		EFFLUENT CONCENTRATIONS					
DAY	O <sub>1</sub>	O <sub>2</sub>	6.25%	12.5%	25%	50%	100%	%
1	0	N/A	0	0	0	0	0	
2	0	N/A	0	0	0	0	0	
3	0	N/A	0	0	0	0	0	
4	0	N/A	0	0	0	0	0	
35. 48-HOUR LC <sub>50</sub> (for <i>Daphnia magna</i> or <i>Ceriodaphnia dubia</i> acute tests) N/A			36. 96-HOUR LC <sub>50</sub> (for fathead minnow acute tests) >100 %			37. TU <sub>a</sub> (acute toxic units - 100/LC <sub>50</sub> ) 0		

Send this report and attachments to the Surface Water Quality Division District Office corresponding to the location at which the sample was taken.

EQP 5818 (5/97)

**FedEx** *USA Airbill*  
Express

\* FedEx  
Tracking  
Number

8400 8395 6672

Form  
1030

0215

RECIPIENT: PEEL HERE

**1 From** This portion can be removed for Recipient's records.

Date 5/30/03

FedEx Tracking Number

840083956672

Sender's  
Name

Michael B. Ortega

Phone 269 381-3400

Company LEWIS REED & ALEN PC

Address 136 E MICHIGAN AVE STE 800

Dept./Floor/Suite/Room

City KALAMAZOO

State MI

ZIP 49007-3914

**2 Your Internal Billing Reference**

7579-3

**3 To**

Recipient's  
Name

Ms. Ellen L. Furey

Phone 312 886-7950

Company U.S. Environmental Protection Agency, Region 5

Address 77 W Jackson Boulevard

To "HOLD" at FedEx location, print FedEx address.

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address

Dept./Floor/Suite/Room

City Chicago

State IL

ZIP 60604-3507



8400 8395 6672

0245819311

**4a Express Package Service**

☒ FedEx Priority Overnight  
Next business morning

☐ FedEx Standard Overnight  
Next business afternoon

☐ FedEx 2Day  
Second business day  
\* FedEx Envelope rate not available. Minimum charge: One-pound rate.

☐ FedEx Express Saver  
Third business day

**4b Express Freight Service**

☐ FedEx 1Day Freight\*  
Next business day

☐ FedEx 2Day Freight  
Second business day

\* Call for Confirmation

**5 Packaging**

☐ FedEx Envelope

☒ FedEx Pak\*  
Includes FedEx Small Pak, FedEx  
Large Pak, and FedEx Sturdy Pak

**6 Special Handling**

☐ SATURDAY Delivery  
Available only for FedEx Priority  
Overnight and FedEx 2Day  
to select ZIP codes

☐ HOLD Weekday  
at FedEx Location  
Not available for  
FedEx First Overnight

Does this shipment contain dangerous goods?

☒ No

☐ Yes  
As per attached  
Shipper's Declaration

☐ Yes  
Shipper's Declaration  
not required

☐ Dry Ice  
Dry Ice, 9

Dangerous Goods (including Dry Ice) cannot be shipped in FedEx packaging.

**7 Payment Bill to:**

☒ Sender  
Acct. No. in Section  
1 will be billed

☐ Recipient

☐ Third Party

Total Packages

Total Weight

1

5

\*Our liability is limited to \$100 unless you declare a higher value. See the FedEx Service Guide.

**8 Release Signature**

Sign to authorize delivery without obtaining signature.

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

Questions? Visit our Web site at [fedex.com](http://fedex.com)

or call 1.800.Go.FedEx® 800.463.3339

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Align bottom of Airbill Pouch